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Narcissism

Daniel K. Lapsley, Paul C. Stey
Department of Psychology, University of Notre Dame, Notre Dame, IN, USA

▶ Now he worships at an altar of a stagnant pool
And when he sees his reflection he's fulfilled
–Bob Dylan ("License to Kill")

Introduction

There are several versions in antiquity of the myth of Narcissus. In Ovid's telling, Narcissus was an exceptionally beautiful boy (born of a nymph and a river god) who was cruel and disdainful of his admirers. By age 15 he was highly desired by youth but by the nymph Echo, in particular, who was herself cursed by the goddess Juno (or Hera) to never speak first but to repeat whatever was said to her. When Echo happened upon Narcissus in the woodlands he haughtily spurned her, a rejection that left her pining till the end of her days until only her voice remained. Echo's plaintive cries for revenge were heard by Venus (or Nemesis), who cursed Narcissus to fall in love with the beautiful boy whose reflection he saw in the waters of a deep pool. When Narcissus realized it was his own reflection that he loved, he despaired of possessing the watery image but could not stop longing for it. There he died, a casualty of ceaseless, malignant self-love, and when the nymphs he had scorned came to look for his body they could only find in its place a flower, now called narcissus.

The tale of Narcissus has long been a caution against the dangers of vanity, obsessive self-regard, and haughty rejection of relationship. In the twentieth century, the myth lent its name to a character type and personality disorder, and gave rise to a widely held assumption that narcissism captures something fundamental about the normative developmental experiences of adolescents – after all, Narcissus was a teenager when consumed with self-desire. The popular fascination with narcissism has only increased in recent years so that today there are nearly two million Web sites devoted to the topic, and it is a common term of abuse for all manner of individuals who annoy us with their egotism, vanity, and self-regard.

Not surprisingly narcissism is the target of scientific investigation in clinical-developmental, social and personality psychology, where it has attracted much interest, although not evenly across these fields of study. The earliest writings on narcissism arose within the psychoanalytic tradition. Freud's (1914/1953) essay "On Narcissism" is credited with introducing narcissism as a feature of normal psychodynamic development. On Freud's view, the sexual instincts first pass through an initial phase of *primary narcissism* where libido is invested in the self to support self-preservation. Later psychodynamic theories would retain a place for narcissism in the story of normal development and work out explanations for how developmental experiences gone awry contribute to the formation of later narcissistic pathology (Ronningstam 1998; Wink 1996).

Hence, from the earliest theoretical formulations narcissism was a developmental construct. Yet developmental studies of narcissism have not kept pace with research in clinical, social, and personality psychology, and, indeed, research on adolescent narcissism is comparatively slight (Hill and Roberts 2011). This is paradoxical given the widely held view, in both popular and academic literatures, that narcissism is both endemic among adolescents and somehow related to their developmental status. As Bleiberg (1994, p. 31) put it, "Perhaps like no other phase of life, the passage through adolescence bears the hallmarks of narcissistic vulnerability: a proneness to embarrassment and shame, acute self-consciousness and shyness, and painful

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questions about self-esteem and self-worth." Indeed, how narcissism is managed may well differentiate normal from dysfunctional adolescent development (Bleiberg 1994), yet one looks in vain for the term "narcissism" in the subject index of developmental textbooks or in the proceedings of professional conferences devoted to the study of adolescence.

There are several reasons for this. One is that the foundational writings on the development of narcissism are located within the broad psychoanalytic paradigm whose theoretical preoccupations are mostly rejected by contemporary academic psychology. Narcissism is one of the most important but also one of the most confusing contributions of psychoanalysis (Miller and Campbell 2008; Pulver 1986), and there is little enthusiasm among contemporary developmental scientists to wade very deeply into the lacunae of Freudian theories largely forgotten, marginalized, or rejected. The challenge is to translate the many searching insights of this tradition into a modern developmental language that is both theoretically plausible and empirically testable.

A second reason is that extant narcissism theory, even in the psychoanalytic tradition, is concerned mostly with clinical manifestations of narcissism and its treatment. As a result, it is hard to render an account of normative adolescent development in a way that does not presume pathology or personality disorder. Although there is broad agreement that narcissism can take normal and pathological forms, and can reflect adaptive and maladaptive personality organization (Pincus and Lukowitsky 2010), there is far less agreement about whether normal and pathological narcissism lie along a continuum of adaptation or constitute different personality types (Foster and Campbell 2007). The broad outline of narcissistic pathology is well described from numerous theoretical perspectives (e.g., Morrison 1988; Dickinson and Pincus 2003), but what constitutes normal narcissism is far less clear (see Paulhus 2001, for a Big Five account). Is it really healthy and adaptive, or merely a "subclinical" form of narcissistic disorder, something along the lines of the better known distinction between having depressive *symptoms* versus being clinically *depressed*?

But no one would mistake depressive symptoms for something normal and healthy just because the symptoms did not rise to the level of clinical significance, yet the conflation of normal and subclinical narcissism is quite common, as evident, for example, in the construction of assessments of normal narcissism based on diagnostic criteria of narcissistic personality disorder (e.g., Raskin and Hall 1981), or in the claim that social-personality research targets normal, subclinical narcissism while clinical research studies narcissism pathology (Miller and Campbell 2008). As Kohut (1986, p. 61) put it, "the contribution of narcissism to health, adaptation and achievement has not been treated extensively," and if narcissism is indeed linked to the developmental status of adolescents then better accounts of normal adolescent narcissism are required. Along these lines, Hill and Lapsley (2011) argued that normal adolescent narcissism might be different *in kind* from the "subclinical" narcissism of interest to clinical and social-personality researchers, a view that is taken up later.

Finally, the relative neglect of developmental research on adolescent narcissism can be linked to the problem of assessment. Until recently, assessments of narcissism targeted adults rather than adolescents and so presumed no developmental variation in the manifestation or expression of narcissism (but see Washburn et al. 2004). Moreover extant assessments, including recently developed measures that do target children or adolescents, are derived from measures that operationalize clinical diagnostic criteria of narcissistic personality, or purport to measure self-pathology (Robbins 1989) and so elide the possibility that normal narcissism might look differently than the clinical or subclinical examples these assessments provide. Of course, the lack of theoretically derived measures of normal adolescent narcissism also reflects the lack of strong developmental theory by which to guide assessment.

In what follows, the essay describes the various clinical-developmental accounts of narcissism with the aim of identifying a set of themes that will anchor a strong theoretical account of normal adolescent narcissism. The claims for narcissism as a normative developmental experience is often related to its role in managing the "second phase" of separation-individuation in adolescence, and here an integrative linkage is forged with certain constructs in the "new look" personal fable constructs (Lapsley and Rice 1988; Lapsley 1993). Finally, the essay describes some promising new assessments of normal adolescent narcissism, and revisits the claim that adolescent narcissism is different in kind from the narcissism of clinical and social-personality psychology.

Developmental Perspectives

Two post-Freudian traditions suggest that narcissism is embedded deeply into normative developmental processes (Mitchell 1988). One tradition regards narcissistic illusions as defensive stratagems that protect the self against anxiety, frustration, inadequacy, separation, and disappointment. This narcissism-as-defense perspective is associated with mainline Freudian theories (e.g., Blos 1962), ego psychology (Kernberg 1975; Rothstein 1986), and interpersonal theory (Sullivan 1972; Fromm 1941). A second tradition views narcissism more positively as the cutting edge of the growing, creative self. This narcissism-as-creativity perspective is associated primarily with Kohut's (1971) self-psychology, but includes Winnicott's (1965) object relations theory as well. The two traditions diverge with respect to the adaptive value of narcissistic illusions and the clinical treatment of narcissistic pathology. Yet both traditions present integrative possibilities for understanding how narcissism is mobilized by adolescents to cope with normative developmental challenges and in a way that is conducive to successful adaptation. Moreover, the common ground between these traditions opens up new possibilities for assessing normal adolescent narcissism and for understanding how narcissistic displays by adolescents can be managed by parents and educators.

Narcissism as Defense

All psychodynamic theories locate the developmental origins of narcissism in infancy, and acknowledge that normal functioning requires some form of it. Normal narcissism, for example, is often described first as the original psychological state of the infant where the caregiver is experienced as an omnipotent extension of the self. Otherwise it is the instinct for self-preservation and self-regard, the disposition toward self-regulation and mastery and the sense of competence and pleasure that it evokes (Stone 1998). It is adaptive self-esteem regulation of the normally integrated self, sources of which include positive feelings that attend one's safety, mastery, appearance, and health, the attainment of goals, and living up to one's ideals (Kernberg 1998). Importantly, one source of positive self-esteem regulation originates "in early experiences of secure attachment as well as by positive resolution of the separation-individuation process leading to the capacity to gratify both autonomous and dependent needs in an adaptive way" (Kernberg 1998, p. 104).

In contrast, the child prone to narcissistic pathology approaches these things not with a tonus of pleasure and mastery but of failure, depletion, and inadequacy. For O. Kernberg (1975), the developing child resorts to narcissistic grandiosity and idealization as a defense against frustration and rage at the inability of caregivers to meet its needs. The narcissistic prone child is resentful and angry, and develops a precocious "illusion of self-sufficiency" to prevent reliance on others who are disappointing (Modell 1986). Grandiose self-admiration, then, is paired with depreciation of others and a denial of dependency.

O. Kernberg (1986) noted five criteria by which to distinguish normal and pathological narcissism in children. First, the grandiose fantasies of normal children, their (sometimes angry) desire to control caregivers, and to be the center of attention are nonetheless more realistic than that of narcissistic personalities. Second, in normal children the overreaction to criticism, failure, and restraint and the need to be the center of admiration are balanced with genuine expressions of other-regarding affect, love, and gratitude and a willingness to trust and depend upon the caregiver. This is less likely with narcissistic children. Third, the demands of normal children are based on real needs, while the demands of pathological narcissism are excessive, unrealistic, and can never be met. Fourth, whereas the self-centeredness of the normal child is otherwise warm and engaging, the pattern of relationships characteristic of pathological narcissism is aloof and cold, with cycles of idealization and devaluation of others and a destructiveness that is easily activated. Finally, the normal narcissistic fantasies of wealth, power, beauty, or accomplishment do not rule out the possibility that others might enjoy or possess these things too. As O. Kernberg (1986, p. 254) put it, "The normal child does not need that everybody should admire him for the exclusive ownership of such treasures; but this is a characteristic fantasy of narcissistic personalities."

Narcissism as defense is also prominent in the accounts of the first (infancy) and second (adolescence) phases of separation-individuation. Rothstein (1986) analyzed the narcissistic defenses of the first phase as described by Mahler and her colleagues (Mahler et al. 1975). At some point after learning to walk and to navigate independently the child develops a sense of its

separateness, vulnerability, and helplessness. Mother's presence and smile is reassuring, but the developing child cannot coerce mother's constant presence as before, and her absence or unreliability is feared or resented. Here a defensive retreat to narcissism shields the child from the dread and anxiety associated with separateness. "The perception of separateness," writes Rothstein (1986, p. 310), "stimulates separation anxiety and the experience of object loss."

The child regains the absent parent by identification with her. The child incorporates the smiling reassurance of mother as an internalized maternal representation. This gives the illusion that the mother is part of the self as agent, but also that the self is an object that elicits maternal approval. The self as agent or object performs as if to elicit the internalized maternal smile, which "...assuages the terror that results from the perception of vulnerability implicit in separateness" (p. 310). This is a narcissistic investment of the self insofar as the child's incorporation of the gratifying, omnipotent caregiver restores the symbiotic unity between the mother and child of infancy, along with the infant's sense of grandeur and perfection. Rothstein (1986) argues that narcissistic investment of the self and separation anxiety are ubiquitous features of the human condition, an insight that is taken up next when the separation anxiety is considered that attends the second phase of separation-individuation in adolescence.

Blos (1962) famously argued that adolescence marks the second phase of separation-individuation, although his orthodox Freudian theory has little in common with Mahler's account of the first phase (e.g., Blos viewed adolescent separation-individuation as a recapitulation of the infantile Oedipus complex). In more general terms, separation-individuation requires adolescents to shed parental dependencies, exercise autonomous agency, and become an individuated self, but in the context of ongoing relational commitments. During the years of childhood, one's self-image is typically derived from parental conceptions of the child. Yet, during adolescence, there is an attempt to establish a self-conception in a way that seems newly created (Josselson 1980). The opening move is to psychologically divest oneself of parental introjections, a move that nonetheless leaves the teenager vulnerable to mourning reactions (because the adolescent has, in fact, lost the durable self-images of childhood), and its accompanying feelings of depletion, ambivalence, and inner emptiness (Blos 1962). This feeling of impoverishment is a form of separation anxiety that is compensated, much like the first phase in early childhood, by narcissistic self-inflation (Rothstein 1986) that supports self-esteem until it can be reestablished on the basis of updated and reconstructed identifications.

It is important to note how this tradition understands the role of narcissism in the separation-individuation process. Sarnoff (1988) argued, for example, that this compensatory and "reactive narcissism" involves a *sense of omnipotence* that includes "grandiose ideas, plans and views of the self" (p. 26). In his view, narcissistic omnipotence "denotes a defensive and reactive heightening of self-esteem to cope with inner feelings of low self-worth, depressive mood and empty feelings" (Sarnoff 1988, p. 25). Similarly, Blos (1962, p. 98) suggested that the upsurge of narcissism is a restitution strategy whereby the adolescent's newly keen perception of inner life, and his or her "willful creation of ego states of a poignant internal perception of the self," leads to a heightened sense of *uniqueness*, *indestructibility*, and *personal agency*. Blos (1962) also believed, however, that such narcissistic ideation tended to impair the adolescent's judgment, and therefore was a problematic aspect of ego development, its defensive qualities notwithstanding.

Note that adolescent narcissism on this account is a natural outgrowth of the individuation process and takes certain recognizable forms in adolescence. It takes the form of *subjective omnipotence*, of a heightened sense of *uniqueness* and of *indestructibility* (which is understood as adolescent invulnerability, see Lapsley 2003). As "reactive narcissism" (Sarnoff) or as a "narcissistic restitution strategy" (Blos), omnipotence, uniqueness, and invulnerability are forms of narcissism that have not yet been captured adequately by current assessments of narcissism (Hill and Lapsley 2011; Lapsley and Rice 1988).

Narcissism as Creativity

In Winnicott's (1965) theory, the prompt and sensitive care of the mother in the way she shapes the "facilitating environment" allows the child to experience a sense of *subjective omnipotence*. The good-enough mother instantiates the child's desires, implements the child's gestures, completes his actions, anticipates his needs, and in so doing makes it possible for the child to

assume that his own wishes brings about that which he desires. Of course, the child will emerge from complete subjective omnipotence and encounter objective reality for what it is, but not all at once. There is an intervening period where there is some ambiguity about the status of objects – what is to be made of a blankie or teddy bear? These "transitional objects" are invested with symbolic meaning in the creative play of the child's imagination long before they simply become just some objects among many.

For Winnicott, the good-enough caregiver permits this transitional phase of ambiguity and, indeed, participates in the child's illusions. Indeed, the capacity to play is the moment of mental health, "the freedom to move back and forth between the harsh light of objective reality and the soothing ambiguities of lofty self-absorption and grandeur in subjective omnipotence" (Mitchell 1988, p. 188). Herein lays the wellspring of creativity, the ability to give free play to narcissistic illusions, and also the source of psychopathology, which is the insufficient experience of subjective omnipotence during the transitional phase.

For Winnicott (1965), then, self-absorption and a sense of subjective omnipotence provide the psychological aliments that support self-extension, ambition, creativity, and growth (Winnicott 1965). Kohut (1971, 1977) also suggests that narcissistic illusions can be used to creatively sustain psychological growth and healthy self-development. In his view, normal self-development can follow either a "grandiose" line, characterized by exhibitionism, assertiveness, and ambition, or else an "idealizing" line, characterized by an idealization of figures and goals.

The earliest self-constructions, on this view, are built out of the experience with others. These constructions Kohut called *self-objects* to denote the crucial role that others play in providing a sense of self-cohesion and esteem over the course of development. The construction of self-objects can follow a *grandiose* or *idealizing* line of development. The grandiose self is felt as the center of influence and can be observed in young children who delight in exhibiting their accomplishments while demanding the watchful attention, approval, and admiration of their parents ("Mommy, watch me!"). It is as if the child says "I am perfect, and you admire me." The idealizing self-object is based on the child's natural tendency to idealize parents as omnipotent figures and to desire merger with their magnificence and power. It is as if the child says, "You are perfect, and I am part of you."

For healthy development to occur, the caregiver must be sensitive to the child's need for admiration and to be available as targets of idealization (Cooper 1986). Parents are normally responsive to children's prideful exhibitionism and need for idealization. For example, the "good-enough" caregiver sustains the cohesiveness of the emergent self by empathic mirroring of the child's grandiosity ("What a big boy!") and by sensitive, age-appropriate attunement of parental empathy to the child's proud displays of emerging capacities and wish for identification and merger. Put differently, the emerging self of the developing child is consolidated around grandiose or idealizing self-objects, which caretakers sustain and complete by their empathic attunement and sensitivity.

Of course, parents cannot provide empathic mirroring either perfectly or for long. The periodic and inevitable failure of parental empathy is a mechanism that both encourages the child to take over for herself the nurturing, encouraging, holding, and limit-setting functions of the self-object; and encourages a diminution of the idealized parental image. In normal development, phase-appropriate empathic failure will modify the grandiose self in the direction of healthy striving and ambition; and replace idealized images with healthy admiration for the realistic qualities of self and of others, a process Kohut called "transmuting internalization."

But narcissistic vulnerability arises under conditions of chronic empathic failure – either parents fail to mirror the child's grandiose self or are unavailable or unsuitable as targets of idealization, resulting in an arrest of self-development. What is required to revitalize the self is sustained experience of grandeur and idealization that is afforded by having relationships of a certain kind – relationships where the other functions as a self-object that provides mirroring support and opportunities for idealization. Kohut had in mind the self-object role played by therapists, but the point is a more general one. There is no reason why others – parents, mentors, educators, and peers – should not play this role by communicating an empathic comprehension of the adolescent's narcissistic constructions, by providing a holding and facilitating environment that permits the teen a dalliance with grandiose self-absorption and the illusions of subjective omnipotence.

To mirror their narcissistic strivings is a way of "going to meet and match the moment of hope," to use Winnicott's (1992, p. 309) eloquent expression. One participates in the adolescent's illusions while "never losing sight of the fact that this is a form of play" (Mitchell 1988, p. 196). In Kohutian terms one effects the transmutation of narcissism by withdrawing, in phase-appropriate ways, the mirroring support, thereby channeling the adolescent's narcissistic needs in realistic directions (Aalsma and Lapsley 1999; Lapsley and Rice 1988).

The key vitalizing moment for self-development is that grandiose and idealizing illusions should not be too easily crushed by bruising harsh reality. Instead, the illusions "must be cultivated and warmly received and certainly not challenged, allowing a reanimation of the normal developmental process through which the illusions will eventually be transformed, by virtue of simple exposure to reality, in an emotionally sustaining environment" (Mitchell 1988, p. 190).

Integrative Lessons

The two approaches to narcissism revealed here are often considered rival traditions of psychoanalytic thought, with very different implications for clinical intervention. Sorting this out is not the concern. Rather, the intent is to show that both traditions offer resources for conceptualizing normal adolescent narcissism – for understanding the role that it plays in helping adolescents face up to normative developmental challenges and the way it is manifested in adolescent behavior. The two traditions also offer insights about how to respond to the narcissistic displays of adolescents.

Hence, for this essay, adolescent narcissism has both defensive and growth-enhancing functions. Its defensive function is recruited during periods of transition when the person is faced with crucial developmental challenges to self-esteem, of which separation-individuation is a prominent example. The individuating adolescent has recourse to narcissistic defense to cope with mourning reactions that attend lost childhood identifications; with the dread and anxiety of psychological separation; with the inner sense of depletion and emptiness that accompanies a self-image under reconstruction; with the anxiety of forming new kinds of relationships that integrate agentic postures of independence and autonomy with communal needs for attachment, connection, and bonding. And from this tradition, one learns what narcissistic defense looks like. It looks like a subjective sense of invulnerability, omnipotence, and personal uniqueness.

Yet to focus solely on the defensive uses of narcissistic illusion is to miss its role in recruiting developmentally crucial relationships that play a growth-enhancing function in healthy self-development. Narcissistic illusions can be defensive but in the service of the ego if it recruits sensitive, empathic relationships that provide mirroring support to the adolescent's grandiosity, need for admiration and idealization. Hence, the defensive use of narcissism should not obscure its essentially creative function, which is to support the adolescent's search for individuated selfhood in the context of ongoing relationships.

Adolescent Narcissism and "Personal Fables"

The theory of adolescent egocentrism is one of the great contributions to the study of adolescent development (Elkind 1967). The theory asserts that during the transition to formal operations adolescents over-assimilate their experience, making them vulnerable to a number of distinctive patterns of ideation. One pattern is the tendency to construct *personal fables.* Personal fables typically include themes of *invulnerability* (an incapability of being harmed or injured), *omnipotence* (viewing the self as a source of special authority, influence or power), and *personal uniqueness* ("no one understands me"). Elkind (1967, p. 1031) describes it this way:

> Perhaps because he believes he is of importance to so many people, the imaginary audience, he comes to regard himself, and particularly his feelings, as something special and unique. Only he can suffer with such agonized intensity, or experience such exquisite rapture. The emotional torments. . .exemplify the adolescent's belief in the uniqueness of his own emotional experience.

These are, of course, the very terms of reference noted in psychodynamic accounts of the transitory narcissism of separation-individuation. For example, Blos (1962, p. 93) describes the narcissist defenses using very similar language: "It is as if the adolescent experiences the world with a unique sensory quality that is not shared by others: 'Nobody felt the way I do'; 'Nobody sees the worlds the way I do'."

In a number of papers Lapsley and his colleagues argued that the personal fable constructs (subjective omnipotence, personal uniqueness, and invulnerability) are poorly grounded by treating them as instantiations of logical egocentrism; and fault the theory on empirical grounds as well (Lapsley 1993; Lapsley and Murphy 1985; Lapsley and Rice 1988). In their view, these constructs are understood better as Blosian examples of a "narcissistic restitution strategy" for coping with self-image vulnerabilities that attend separation-individuation. In other words, the narcissistic invulnerability, omnipotence, and uniqueness experienced by adolescents may have more to do with ego development than it does cognitive development.

Assessment

The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV-TR*; American Psychiatric Association 2000) lists several central characteristics of narcissism: a grandiose sense of self-importance, a need for the admiration of others, arrogance, a sense of uniqueness and entitlement, a lack of empathy, envy, and a tendency to exploit others. It was around such diagnostic criteria that the Narcissistic Personality Inventory (NPI, Emmons 1987; Raskin and Hall 1979) was constructed. The NPI is arguably the most often used measure of "normal" (read: subclinical) narcissism. Although it enjoys a measure of construct validity (e.g., Emmons 1984; Raskin and Terry 1988; Rhodewalt and Morf 1995), there is also mounting dissatisfaction with it, too, largely because of the modest reliabilities of its subscales, uncertainty about its factor structure, and ambiguity about how to interpret the total score when it is summed across these items (e.g., Brown et al. 2009). Still, it is widely accepted as a measure of overt narcissism.

But there has been a remarkable interest in narcissism assessment, with four promising narcissism scales appearing recently. One scale (NPI-16) is a short measure of narcissism based on the original 40 items of the NPI (Ames et al. 2005). A second scale (NPI-C, Barry et al. 2003) is also based on the 40-item NPI but uses a response format patterned after the Self-Perception Profile (Harter 1982, measuring self-worth). The Childhood Narcissism Scale (CNS) is a 10-item scale designed for use with children and young adolescents (Thomaes et al. 2008). Both the NPI-C and the CNS claim to measure adult characteristics of narcissism but at younger ages. All three of these new scales purport to tap narcissistic tendencies or symptoms in normal, non-referred population. In contrast, a new measure of pathological narcissism was reported that assesses seven dimensions of narcissism (Pincus et al. 2009). These dimensions are grouped under the two broad categories (grandiosity–vulnerability) of the narcissism phenotype (Pincus and Lukowitsky 2010), and showed convincing evidence of psychometric integrity and validity.

Other assessment options include several MMPI-derived scales (Wink 1991; Wink and Gough 1990), scales based on the California Q-set (Wink 1992), and assessments motivated by Kohut's self-psychology (Robbins 1989; Robbins and Patton 1985; Lapan and Patton 1986), among others (e.g., O'Brien 1988; Mullins and Kopelman 1988). In some of this research, a distinction is reported between overt and covert narcissism. For example, Wink (1991), described the overt narcissist as a grandiose exhibitionist who is self-indulgent, manipulative, driven by power, and by a strong need to be admired. The covert narcissist, in turn, was described as being insecure, hypersensitive, and vulnerable to feelings of inferiority. As Wink (1996, p. 167) put it, "narcissistic fantasies of power and grandeur can equally well lurk behind a bombastic and exhibitionistic façade as one of shyness, vulnerability and depletion."

The distinction between overt and covert narcissism has gained some traction in the literature, and the pace of research will surely increase with the appearance of a 10-item measure of hypersensitive covert narcissism (Hypersensitive Narcissism Scale; Hendin and Cheek 1997). The general strategy is to use the NPI as a measure of overt narcissism and the HSNS as a measure of covert narcissism. Using this strategy, Fossati et al. (2010) showed that overt and covert narcissism was differentially related to proactive and reactive aggression. Some evidence for the distinction was also reported by Lapsley and Aalsma (2005), who identified a typology of narcissism that included both overt and covert forms in a sample of late adolescents, using a cluster analysis of extant measures.

More recently, however, doubts have been raised about the distinction between overt and covert narcissism. Pincus and Lukowitsky (2010; also Cain et al. 2008) argued that the narcissism phenotype is comprised of

two core components: grandiosity and vulnerability. Grandiosity is characterized, intra-psychically, by a repression of negative self-other representations, by a tendency to distort disconfirming information, by a sense of entitlement and an inflated self-image without real accomplishment, along with fantasies of power, superiority, and perfection. Behaviorally grandiosity is marked by interpersonal exploitativeness, lack of empathy, envy, and exhibitionism. In other words, grandiosity is the totality of everything the DSMS-IVF-TR has to say about narcissism. In turn, the vulnerability component is marked by hypersensitivity, a sense of humiliation in response to narcissistic injury, a pattern of shameful reactivity, as well as other themes noted by Wink (1991). However, the vulnerability component of narcissism does not appear to be central to its DSM diagnosis.

Pincus and Lukowitsky (2010) complain that prevailing clinical theory requires both grandiosity and vulnerability as core components of narcissism, but that revision of the DSM diagnostic criteria has narrowed to focus exclusively on grandiosity while eliminating vulnerability themes from diagnostic consideration. They also argue that the overt–covert distinction should not be considered part of the narcissism phenotype but rather reflects different modes of expressing narcissistic grandiosity and vulnerability. "The distinction between overt and covert expressions of narcissism," they write, "is secondary to phenotypic variation in grandiosity and vulnerability" (Pincus and Lukowitsky 2010, p. 430).

A recent strategy for assessing adolescent narcissism has been to target subjective omnipotence, invulnerability, and personal uniqueness as its core components and to develop separate scales for each component (Hill and Lapsley 2011), a strategy increasingly being adopted in the assessment of other narcissism components (e.g., Campbell et al. 2004). The Adolescent Invulnerability Scale (AIS) is a reliable 21-item Likert-type scale that assesses felt invulnerability to danger, injury, or harm. It includes separate subscales for Danger Invulnerability and Psychological Invulnerability. Strong associations with risk behavior have been documented, but also with indices of successful adaptation and coping, suggesting that felt invulnerability has two faces, one that looks toward risk behavior and another toward adaptation (Lapsley and Hill 2010). The Subjective Omnipotence Scale is a 30-item scale that taps adolescent sense of having unusual power or influence across three subscales: Influence ("I can influence how people think"), "Leadership" ("I'd make a great leader because of my abilities") and "Grandiosity" ("I'm better that other people at just about everything").It shows strong internal consistency (α =.90 s), strong convergent validity with the NPI, and robust association with numerous indices of positive adjustment while counter-indicating internalizing symptoms (e.g., Aalsma et al. 2006). Finally, the Personal Uniqueness Scale is a 17-item scale that also shows strong evidence of internal consistency (α =.90 s s), a significant association with hypersensitive narcissism, little relationship with overt narcissism, and positive associations with internalizing symptoms and adjustment problems.

Summary and Conclusion

The essay attempted to make the case for a developmental theory of normal adolescent narcissism. Key themes were drawn from psychoanalytic traditions that understand narcissism both as a defense and as a creative engine of positive self-development. The narcissism that attaches to the developmental status of adolescents is motivated by the normative challenges that attend separation-individuation, and take the form of pronounced invulnerability, omnipotence, and personal uniqueness. These constructs constitute a form of narcissism insofar as they align with the grandiose–vulnerable narcissism prototype, with grandiosity picking up invulnerability and omnipotence, and vulnerability aligning with personal uniqueness. These constitute normal narcissism just to the extent that they are expressed without the clearer markers of narcissism dysfunction or pathology, that is, without exploitativeness, lack of empathy, envy, entitlement, among other diagnostic markers.

Grandiosity without exploitation, illusions without entitlement, invulnerability without shame, idealization without envy, omnipotence without isolation, the desire for admiration but with moments of realistic self-consciousness, preening self-preoccupation but with warm other-regarding affect – these may well mark the boundary of normal and dysfunctional narcissism. With a stronger conception of its role in normative developmental processes and armed with theoretically derived assessments, the study of adolescent narcissism is at an exciting juncture.

Cross-References

► Egocentrism

References

Aalsma, M., & Lapsley, D. K. (1999). Religiosity and adolescent narcissism: Implications for values counseling. *Counseling and Values, 44*, 17–29.

Aalsma, M., Lapsley, D. K., & Flannery, D. (2006). Narcissism, personal fables, and adolescent adjustment. *Psychology in the Schools, 43*, 481–491.

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text revision). Washington, DC: American Psychiatric Association.

Ames, D. R., Rose, P., & Anderson, C. P. (2005). The NPI-16 as a short measure of narcissism. *Journal of Research in Personality, 40*, 440–450.

Barry, C. T., Frick, P. J., & Killian, A. L. (2003). The relation of narcissism and self-esteem to conduct problems in children: A preliminary investigation. *Journal of Clinical Child and Adolescent Psychology, 32*, 139–152.

Bleiberg, E. (1994). Normal and pathological narcissism in adolescence. *American Journal of Psychotherapy, 48*, 29–51.

Blos, P. (1962). *On adolescence*. New York: Free Press.

Brown, R. P., Budzek, K., & Tamborski, M. (2009). On the meaning and measure of narcissism. *Personality and Social Psychology Bulletin, 35*, 951–964.

Cain, N. M., Pincus, A. L., & Ansell, E. B. (2008). Narcissism at the crossroads: Phenotypic description of pathological narcissism across clinical theory, social/personality psychology, and psychiatric diagnosis. *Clinical Psychology Review, 28*, 638–656.

Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J., & Bushman, B. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Psychological Assessment, 83*, 29–45.

Cooper, A. (1986). Narcissism. In A. Morrison (Ed.), *Essential papers on narcissism* (pp. 112–143). New York: New York University Press.

Dickinson, K. A., & Pincus, A. L. (2003). Interpersonal analysis of grandiose and vulnerable narcissism. *Journal of Personality Disorders, 17*, 188–207.

Elkind, D. (1967). Egocentrism in adolescence. *Child Development, 38*, 1025–1034.

Emmons, R. A. (1984). Factor analysis and construct validity of the Narcissistic personality inventory. *Journal of Personality Assessment, 48*, 291–300.

Emmons, R. A. (1987). Narcissism: Theory and measurement. *Journal of Personality and Social Psychology, 52*, 11–17.

Fossati, A., Borroni, S., Eisenberg, N., & Maffei, C. (2010). Relations of proactive and reactive dimensions of aggression to overt and covert narcissism in non-clinical adolescents. *Aggressive Behavior, 36*, 21–27.

Foster, J. D., & Campbell, W. K. (2007). Are there such things as "Narcissists" in social psychology? A taxometric analysis of the Narcissistic personality inventory. *Personality and Individual Differences, 43*, 1321–1332.

Freud, S. (1914/1953). On narcissism: An introduction. In Strachey J (Ed.), *Standard edition of the complete psychological works of Sigmund Freud, Vol. 14* (pp. 67–102). London: Hogarth Press.

Fromm, E. (1941). *Escape from freedom*. New York: Avon.

Harter, S. (1982). The perceived competence scale for children. *Child Development, 53*, 87–97.

Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A reexamination of Murray's Narcism scale. *Journal of Research in Personality, 31*, 588–599.

Hill, P. L., & Lapsley, D. K. (2011). Adaptive and maladaptive narcissism. In C. T. Barry, P. Kerig, K. Stellwagen, & T. D. Barry (Eds.), *Implications of narcissism and machiavellianism for the development of prosocial and antisocial behavior in youth*. Washington, DC: APA Press.

Hill, P. L., & Roberts, B. W. (2011). Examining "developmental me": A review of narcissism as a lifespan construct. In W. K. Campbell & J. D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder: Theoretical approaches, empirical findings, and treatments*. Hoboken: Wiley.

Josselson, R. (1980). Ego development in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychology* (pp. 188–210). New York: Wiley.

Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism*. New York: Jason Aronson.

Kernberg, O. F. (1986). Further contributions to the treatment of narcissistic personalities. In A. Morrison (Ed.), *Essential papers on narcissism* (pp. 244–292). New York: New York University Press.

Kernberg, P. F. (1998). Developmental aspects of normal and pathological narcissism. In E. F. Ronningstam (Ed.), *Disorders of narcissism: Diagnostic, clinical and empirical implications* (pp. 103–120). Washington, DC: American Psychiatric Press.

Kohut, H. (1971). *The analysis of the self*. New York: International Universities Press.

Kohut, H. (1977). *The restoration of the self*. New York: International Universities Press.

Kohut, H. (1986). Forms and transformations of narcissism. In A. P. Morrison (Ed.), *Essential papers on narcissism*. New York: New York University Press.

Lapan, R., & Patton, M. J. (1986). Self psychology and the adolescent process: Measures of pseudo-autonomy and peer-group dependence. *Journal of Counseling Psychology, 33*, 236–241.

Lapsley, D. K. (1993). Towards an integrated theory of adolescent ego development: The "new look" at adolescent egocentrism. *The American Journal of Orthopsychiatry, 63*, 562–571.

Lapsley, D. K. (2003). The two faces of adolescent invulnerability. In D. Romer (Ed.), *Reducing adolescent risk: Towards and integrative approach* (pp. 25–31). Thousand Oaks: Sage.

Lapsley, D. K., & Aalsma, M. (2005). An empirical typology of narcissism and mental health in late adolescence. *Journal of Adolescence, 11*, 173–191.

Lapsley, D. K., & Hill, P. L. (2010). Subjective invulnerability, optimism bias and adjustment in emerging adulthood. *Journal of Youth and Adolescence, 39*, 847–857.

Lapsley, D., & Murphy, M. (1985). Another look at the theoretical assumptions of adolescent egocentrism. *Developmental Review, 5*, 201–217.

Lapsley, D. K., & Rice, K. G. (1988). The new look at the imaginary audience and personal fable: Toward a general model of adolescent ego development. In D. K. Lapsley & F. C. Power (Eds.), *Self, ego, identity: Integrative approaches* (pp. 109–129). New York: Springer.

Mahler, M., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant.* New York: Basic Books.

Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality, 76*(3), 449–476.

Mitchell, S. A. (1988). *Relational concepts in psychoanalysis: An integration.* Cambridge, MA: Harvard University Press.

Modell, A. H. (1986). A narcissistic defence against affects and the illusion of self-sufficiency. In A. P. Morrison (Ed.), *Essential papers on narcissism.* New York: New York University Press.

Morrison, A. P. (Ed.). (1988). *Essential papers on narcissism.* New York: New York University Press.

Mullins, L. S., & Kopelman, R. E. (1988). Toward an assessment of the construct validity of four measures of narcissism. *Journal of Personality Assessment, 52*, 610–625.

O'Brien, M. L. (1988). Further evidence of the validity of the O'Brien Multiphasic Narcissism Inventory. *Psychological Reports, 62*, 879–882.

Paulhus, D. L. (2001). Normal narcissism: Two minimalist accounts. *Psychological Inquiry, 12*, 228–230.

Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology, 6*, 421–446.

Pincus, A. L., Ansell, E. M., Pimentel, C. A., McCain, N. M., Wright, A. G. C., & Levy, K. N. (2009). Initial construction and validation of the pathological narcissism inventory. *Psychological Assessment, 21*, 356–379.

Pulver, S. E. (1986). Narcissism: The term and the concept. In A. P. Morrison (Ed.), *Essential papers on narcissism* (pp. 91–111). New York: New York University Press.

Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports, 45*, 590.

Raskin, R., & Hall, C. S. (1981). The narcissistic personality inventory: Alternate form reliability and further evidence of construct validity. *Journal of Personality Assessment, 45*, 159–162.

Raskin, R., & Terry, H. (1988). A principle-components analysis of the Narcissistic personality inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology, 54*, 890–902.

Rhodewalt, F., & Morf, C. C. (1995). Self and interpersonal correlates of the Narcissistic personality inventory: A review and new findings. *Journal of Research in Personality, 29*, 1–23.

Robbins, S. B. (1989). Validity of the superiority and goal instability scales as measures of defects in the self. *Journal of Personality Assessment, 53*, 122–132.

Robbins, S. B., & Patton, M. J. (1985). Self-psychology and career development: Construction of the superiority and goal instability scales. *Journal of Counseling Psychology, 32*, 221–231.

Ronningstam, E. F. (Ed.). (1998). *Disorders of narcissism: Diagnostic, clinical and empirical investigations.* Washington, DC: American Psychiatric Press.

Rothstein, A. (1986). The theory of narcissism: An object-relations perspective. In A. P. Morrison (Ed.), *Essential papers on narcissism* (pp. 308–320). New York: New York University Press.

Sarnoff, A. C. (1988). *Psychotherapeutic strategies in late latency through early adolescence.* Northvale: Jason Aronson.

Stone, M. H. (1998). Normal narcissism: An etiological and ethological perspective. In E. F. Ronningstam (Ed.), *Disorders of narcissism: Diagnostic, clinical and empirical implications* (pp. 7–27). Washington, DC: American Psychiatric Press.

Sullivan, H. S. (1972). *Personal psychopathology.* New York: Norton.

Thomaes, S., Stegge, H., Bushman, B. J., Olthof, T., & Denissen, J. (2008). Development and validation of the childhood narcissism scale. *Journal of Personality Assessment, 90*, 382–391.

Washburn, J. J., McMahon, S. D., King, C. A., Reinecke, M. A., & Silver, C. (2004). Narcissistic features in young adolescents: Relations to aggression and internalizing symptoms. *Journal of Youth and Adolescence, 33*, 247–260.

Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology, 61*, 590–597.

Wink, P. (1992). Three narcissism scales for the California Q-set. *Journal of Personality Assessment, 58*, 51–66.

Wink, P. (1996). Narcissism. In C. G. Costello (Ed.), *Personality characteristics of the personality disordered* (pp. 146–172). New York: Wiley.

Wink, P., & Gough, H. G. (1990). New narcissism scales for the California Psychological Inventory and MMPI. *Journal of Personality Assessment, 54*, 446–462.

Winnicott, D. W. (1965). *The maturational process and the facilitating environment.* New York: International Universities Press.

Winnicott, D. W. (1992). The antisocial tendency. In D. W. Winnicott (Ed.), *Through paediatrics to psychoanalysis: Collected papers* (pp. 306–315). New York: Brunner/Mazel.

Narcolepsy

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

Narcolepsy is a lifelong condition marked by an abnormally regulated sleep–wake cycle and increases in rapid eye movement (REM) sleep. Individuals affected by narcolepsy experience excessive daytime sleepiness, often associated with cataplexy (muscle weakness), sleep paralysis, or hallucinations, which are either hypnagogic (occurring at sleep onset) or hypnopompic (occurring during awakening) (American Sleep Disorders Association 2001). Additionally, symptoms of narcolepsy can include sleep attacks that occur suddenly during the day as well as disrupted nocturnal sleep and automatic behavior.

In children, cataplexy can develop later so that excessive sleepiness is the only symptom. Many retrospective studies suggest that about half of adults experienced narcoleptic onset in their youth. One leading study, for example, noted that the age at onset is bimodal: a first peak occurring at 14.7 years, and a second peak occurring at 35 years (Dauvilliers et al. 2001). Yet, a large prospective study identified only 5% as occurring during youth; and the prevalence in Europe and North America is 0.05% (see Nevsimalova 2009). These diverging findings suggest the need for increased research to identify the prevalence of narcolepsy in youth. Doing so is of significance especially given that young age at onset associates with increased severity of the condition, and that a familial history of narcolepsy influences the age of onset as well as the probability of having the disease (Dauvilliers et al. 2001).

Symptoms of narcolepsy are rare and difficult to diagnose in infants and toddlers due to their inability to describe feelings, atypical symptoms, and lack of polysomnographic criteria. Case studies of infants describe bouts of laughter or excitement inducing a sleep attack. In school-aged children, constant drowsiness may lead to an inability to focus at school, and chronic napping and sleep attacks may leave little room for homework or play. In school-aged children, sleep attacks are longer than those seen in adulthood and thus take up more of the day. As with other age groups, attacks often are provoked by strong emotion; however, cataplexy may still not be present. REM sleep symptoms also have been found in school-aged children, with hypnagogic hallucinations (39%) being more common than sleep paralysis (29%) (see Wise 1998). Finally, sleep drunkenness has often been reported, while automatic behavior is sometimes accompanied with childhood narcolepsy.

Narcolepsy also can affect children and adolescents' personalities (for a review, see Nevsimalova 2009). They may become more introverted, as well as feel inferior, sorrowful, emotionally labile, irritable, or even aggressive. They also may have poor attention, concentration, and disciplinary problems. Emotional problems also are common with children and adolescents who have narcolepsy. Amygdala dysfunction may be responsible for the lack of emotional regulation. The expression of certain genes in narcolepsy also may be the cause of emotional dysfunction. Obesity also is common, caused by lower metabolism and changes in eating behaviors linked to narcolepsy. Early puberty also has been described in some cases of severe narcolepsy. These findings suggest that the psychosocial impact of narcolepsy extends beyond the effects of excessive sleepiness and that it can contribute to significant psychological morbidity (see also Dorris et al. 2008).

To diagnose narcolepsy, guidelines recommend that clinicians use an examination covering detailed anamnesic data as well as an auxiliary examination (see Nevsimalova 2009; Dauvillers et al. 2003). A sleep diary might help to illustrate the amount of daytime and nocturnal sleep. Actigraphic recordings can help screen the causes of children's naps during the day. Regarding polysomnographic studies for diagnosis, ambulatory monitoring is used to measure physiological parameters. This can verify sleep-onset REM periods and detect cataplectic attacks. It can eliminate other possible reasons for excessive daytime sleepiness. Multiple sleep latency testing is recommended for school-aged children and adolescents and measures the time it takes to transition from wakefulness to sleep. Human leukocyte antigen typing can be used in all ages, including infants and toddlers. While it is not good at detecting cases without cataplexy, it can support a diagnosis in early stages. Hypocretin (Hcrt-1) evaluation in cerebrospinal fluid works well for infants, toddlers, and preschool children when narcolepsy is suspected. When Hcrt-1 is undetectable, it is a diagnostic marker in children. Unfortunately it is a painful procedure, is not available everywhere, and poor at detecting narcolepsy in cases without cataplexy. Finally, complementary tests should be used, including CT and MRI scans to exclude tumors or other diseases. Clearly, numerous ways can be used to diagnose narcolepsy.

Research in this area has identified some important methods for treating narcolepsy. The suppression of the autoimmune system is the most effective possibility in the earliest stages of narcolepsy. For children, there is no specific treatment course; however, there are several recommended methods (see Wise 1998). A variety of pharmaceutical options are available, including sodium oxybate for narcoleptic adolescents (Zuberi 2010). Drug therapy may have adverse effects, however, including drug tolerance. Additionally, non-pharmacological treatments should be implemented, including regular sleep–wake cycles, scheduled nap times, after-school sports, and exercise programs. It also is advisable for adolescents not to drive, use alcohol, or use drugs while drowsy. They also should consider appropriate career

counseling and creating an alliance between teachers and parents. Although medications may be helpful to some extent, reviews reveal that the most important way to manage narcolepsy in adolescents is education, emotional and academic support, and careful follow-up over time to assist children and families in achieving an optimal quality of life (see Wise 1998).

Narcolepsy still remains a largely underrecognized and underdiagnosed disease as it relates to children and adolescents. With cataplexy developing later and children being embarrassed to discuss symptoms, diagnosis may be inhibited. Using biological tests may aid in early detection, but treatment ultimately rests on the support of patients' families and schools to help manage the symptoms of juvenile narcolepsy.

Cross-References

► Sleep Disturbances

References

American Sleep Disorders Association. (2001). *International classification of sleep disorders, revised: Diagnostic and coding manual.* Westchester: Author.

Dauvillers, Y., Billiard, M., & Montplaisir, J. (2003). Clinical aspects and pathophysiology of narcolepsy. *Clinical Neurophysiology, 114*, 2000–2017.

Dauvilliers, Y., Montplaisir, J., & Molinari, J. (2001). Age at onset of narcolepsy in two large populations of patients in France and Quebec. *Neurology, 57*, 2029–2033.

Dorris, L., Zuberi, S. M., Scott, N., Moffat, C., & McArthur, I. (2008). Psychosocial and intellectual functioning in childhood narcolepsy. *Developmental Neurorehabilitation, 11*, 187–194.

Nevsimalova, S. (2009). Narcolepsy in childhood. *Sleep Medicine Reviews, 13*, 169–180.

Wise, M. S. (1998). Childhood narcolepsy. *Neurology, 50*, 37–42.

Zuberi, S. M. (2010). Narcolepsy in childhood. *Journal of Pediatric Neurology, 8*, 79–80.

Narrative Identity

Kate C. McLean[1], Monisha Pasupathi[2]
[1]Department of Psychology, Western Washington University, Bellingham, WA, USA
[2]Department of Psychology, University of Utah, Salt Lake City, UT, USA

Narrative identity development is defined as the ability to integrate the past and present into a life story, and to articulate and anticipate one's future. This developmental process is specific to adolescence (and emergent adulthood), such that this life story *begins* to emerge here, but is also linked to developmental practices in childhood and to important outcomes in adulthood. Current research works under the assumption that the past and future become newly available to adolescents in the form of narrative, along with a cultural and personal imperative to create a life story. Researchers in this area examine how constructing stories plays a role in the normative transition from a healthy childhood to a healthy adulthood, and also examine the relevance and utility of stories for at-risk youth.

Approaches to Studying Narrative Identity

There are two major approaches in current work on narrative identity, which are not necessarily mutually exclusive but have somewhat different questions and methods. In the first approach, narrative identity is defined in terms of a person's life story. In this approach, written or interview-elicited narratives of important life events are obtained to capture the person's internal representation of his or her life, and these narratives are then examined for characteristics that indicate a healthy (or unhealthy) narrative identity. Healthy narrative identities are life stories that provide a sense of how a person's past informs the person they are today, and how both their past and present point toward the future (McAdams 1993). Indeed, aspects of narrative identity, such as coherence and the degree to which individuals make meaning of their pasts, are related to important aspects of well-being and adjustment. For example, those with more coherent life stories also have lower depression, and those with more meaning-filled narratives are more likely to be identity achieved from an Eriksonian perspective.

The second approach to studying narrative identity is not to examine the story as a "product," but is to examine narratives as a process by which identity develops. In this approach, researchers examine how people tell stories as a mechanism by which individuals come to understand themselves through time, or how they make meaning of their past experiences (e.g., Habermas 2010; McLean and Pasupathi 2010; see also Bamberg 2006). Many researchers from this perspective have situated this meaning-making process in the social context of conversations about past events.

Researchers using this approach either examine particular types of meanings in individual's narratives, or examine how the act of constructing a narrative results in changes to an individual's identity over time. For example, in early childhood parents scaffold their children's narrative skills such that children can begin to put events in temporal order and engage in some forms of self-evaluation in talking about those events (Fivush et al. 2006). A small body of work also supports the idea that listeners are also relevant to narrative identity among adults (McLean and Pasupathi 2010; Pasupathi and Hoyt 2009; Thorne 2000), primarily in supporting the construction of elaborated and meaning-laden narratives. Importantly, these processes of meaning-making, or reflecting on how past events connect to the current self, is viewed as critical in forming the larger life story.

What Is Known About Narrative Identity

Identity construction has long been viewed as a major task for adolescents but this task does not unfold in a vacuum. Rather, adolescents build a narrative identity in ways that are affected by their previous experiences with narrative and self, and the kinds of narrative identities that adolescents build are likely to have influences on their adult lives, as just described.

Childhood

At age 3 years of age, children begin to coherently narrate past events through memory conversations with parents, and it is the process of narration that teaches children both that remembering is valuable, and how to narrate the past. While autobiographical memory development in early childhood depends in part on general neuropsychological maturation and on developing conceptions of self, researchers have clearly shown that parents play a critical role in helping their children to learn how to narrate the past, as well as how to connect the past to current self-conceptions (Fivush et al. 2006).

Given theorized connections between self and memory, researchers in this area have shown that memory narratives in early childhood are linked to indicators of self-development, such as self-esteem, self-concept consistency, and some aspects of conscience (Fivush et al. 2006). Much of this work has shown that the elaborative reminiscing styles of the parent are linked to more positive and advanced outcomes in self-development. Elaborative reminiscing is defined as that in which the parent encourages the child to produce new ideas or perspectives on past events. More elaborative reminiscence practices predict positive outcomes for children, such as more adaptive coping strategies and fewer internalizing and externalizing behaviors, and elaborative narration appears particularly important for understanding negative experiences (Bohanek et al. 2009; Fivush et al. 2006). Thus, for children between 3 and 8 years of age, aspects of narrative remembering are connected to positive self-development, and while positive self-development indicators like self-esteem or self-concept consistency are not the same as identity, they may be thought of as developmentally appropriate precursors to identity in adolescence and adulthood.

Adolescence

The dominant finding from current research is that narrative identity development across adolescence entails increasingly elaborated narratives. That elaboration is not simply elaboration of all aspects of narrative. Rather, it coincides with the emergence of qualitatively distinct tools for creating coherence and meaning in the life story. For example, for older adolescents two new tools emerge: (1) the capacity to construct narratives in which experiences shaped, molded, or changed one's sense of self; and (2) the capacity to construct narratives in which changing perspectives on an event are represented (Habermas 2010). These developmental changes are synonymous with the emergence of narrative identity itself – they reflect a burgeoning capacity to construct meanings in the context of narrating the past.

Recently several researchers have provided further detail about how these adolescent achievements unfold, in particular, how they are situated within the childhood that preceded them, and their implications for positive adjustment. First, not surprisingly, narratives get more complex across adolescence (McLean and Pasupathi 2010). Specifically, over time adolescents report more explicit meaning and explanation about how their autobiographical past connects to the present self. Second, adolescent narratives are predicted by earlier practices of conversational narration with parents (McLean and Pasupathi 2010). For example, mother's references to their child's emotions at age 3 years, predict the child's references to his or her own emotions

at 12 years. Further, the ways in which the entire family works together to construct narratives in middle childhood predict later adolescent adjustment (Bohanek et al. 2009).

Similar to work in childhood and adulthood that has found that meaning-making occurs in the context of negative events, research in adolescence has also shown that the elaboration of negativity appears to play important roles in fostering narrative identity development (e.g., McLean and Pratt 2006). Further, work on how narrative processes relate to well-being has shown that it is not positive emotion in narratives of important past events that predicts self-esteem, but whether or not past negative events are redeemed. That is, when past events are reconstructed in ways such that the individual perceives positive consequences from those negative events, individuals also report higher self-esteem. Thus, much of the work of constructing a sense of self involves coming to terms with and explaining past challenges to the self. Importantly, much of this new work suggests that gender moderates the relationship between narrative processes and well-being in adolescence. Though data are still emerging to detail exactly how this moderating relationship works, research suggests that the link between narrative processing and well-being is clearer for boys than for girls.

Recent work also illustrates how the contexts of narrative identity development shift to include peers (McLean and Pasupathi 2010). For example, researchers have explored the issue of autonomy in relation to parent–child and peer–peer reminiscing, and suggest that problematic parent–child narration may be mirrored in peer–peer recall, at least for some individuals, leading to a broader problem in building an autonomous and authentic identity during adolescence. The idea that narrative processes with parents may be mirrored in narrating with peers is consistent with research showing that adolescents choose friends who are similar to them on a variety of characteristics, for better or worse. Recent data also suggest that while friends do become an important context for reminiscing in adolescence, mothers are better equipped to scaffold emerging narrative identities than are friends, by providing more statements and questions in conversations that encourage meaning-making.

Shifting contexts during adolescence for narration, from narration with parents, to narration with peers and romantic partners, also open up more complex and multiple identity possibilities. As yet, however, there are relatively little data on adolescent narrative identity that tell us what factors affect the way youth build coherent and meaning-filled identities and how parents, educators, and policy makers can foster the conditions under which those identities are constructed. That dearth of research on adolescent narrative identity is being rapidly addressed as researchers from the child and adult literatures converge on adolescence (see McLean and Pasupathi 2010).

Another area of research is focused on narrative development in at-risk youth. Researchers appear to agree, theoretically, that for youth with troubled backgrounds and risky behavior profiles, opportunities for positive development exist in narrative. For at-risk youth, such as those who have been incarcerated, abused, are teenage mothers, or drug-addicted, narrative identity may be a place where those youth can begin to construct a change toward more positive outcomes. That is, the possibility to understand one's transgressions and oneself and to pave a new path for the future may lie in narrative reconstruction (McLean and Pasupathi 2010). However, there are great challenges for these youth as well. For example, violent youth offenders show serious deficits in understanding other's perspectives in narrating their past transgressions, particularly in terms of other's internality and agency. These deficits result in severely incoherent narratives that likely pose a real risk to any sort of positive development. Other researchers have highlighted the discrepancy between research focused on criminal desistance and narrative, in that the former focuses on desistence from bad behavior and the latter focuses on internal transformations of thought. Indeed, narrative researchers need to begin to link studies of narrative processes to behavior to understand whether and how those at risk can truly transform in both thought and behavior through constructing narrative identity.

Overall, current research suggests that narrative identity is consequential for adolescents' well-being and adjustment. While work remains to be done in elaborating those connections, the potential importance of narrative identity has been demonstrated (McLean and Pasupathi 2010). Given that importance, it becomes critical to illuminate the ways that one can foster adaptive narrative identity development in youth. Three issues are highlighted as critical directions in this endeavor.

Adolescence is a time when individuals are beginning to negotiate growing independence in the context of maintaining and even deepening relationships with parents. First, suggestion is that researchers will need to examine in greater detail how scaffolding and support from others, namely parents, shifts as adolescents make strides toward autonomy, and how others, namely peers, might play roles in helping to construct narrative identity (e.g., McLean and Pasupathi 2010; Thorne 1995).

Second, recent work highlights the variety among adolescents in terms of age, background, and capacity in terms of the resources they have to wrestle with to manage the task of identity development, yet that individual variation has not been a focus of current research. Thus, researchers will also need to examine more systematically what kinds of variations between individual adolescents are consequential for narrative identity processes. These may include personality and motivational differences, and also the availability of good listeners for the construction of narrative identity.

Relatedly, most studies focus on convenience samples that tend to be privileged, or unique in some contextual factor. In contrast to work in childhood and adulthood there is as yet little data explicitly addressing cultural comparisons. Further, there is variation in coding schemes that is sometimes necessary to fit study-specific methods or samples, but nonetheless makes comparisons across studies more complicated than is desirable.

Fourth, adolescence brings a uniquely greater awareness of the broader world, including media representations, politics, cultural shifts, and historical events. This raises the third issue for future work, which is to examine how media and the unfolding of historical events, in addition to proximal contexts like families and friends, affect the development of narrative identity (McLean and Pasupathi 2010).

Conclusions

Overall and across the diversity of studies, recent work highlights the recent claim of Fivush et al. (2006) that narrative is a critical developmental process, in this case for the development of a healthy narrative identity. Current research is consistent with this process perspective in that some researchers take explicitly and empirically process approaches in their prospective longitudinal designs and some discuss the processes relevant to the tasks of their studies. The importance of identifying and testing the developmental processes that predict and facilitate healthy development is one of the major tasks of developmental scientists, and these contributions offer important and unique perspectives on the process of narrative development in adolescence.

References

Bamberg, M. (2006). Stories: Big or small, why do we care? *Narrative Inquiry, 16*, 139–147.

Bohanek, J. G., Marin, K. A., Fivush, R., & Duke, M. P. (2009). Family narrative interaction and children's sense of self. *Family Process, 45*, 39–54.

Fivush, R., Haden, C. A., & Reese, E. (2006). Elaborating on elaborations: Role of maternal reminiscing style in cognitive and socioemotional development. *Child Development, 77*, 1568–1588.

Habermas, T. (Ed.). (2010). *The development of autobiographical reasoning in adolescence and beyond, new directions for child and adolescent development.* San Francisco: Jossey-Bass.

McAdams, D. P. (1993). *The stories we live by: Personal myths and the making of the self.* New York: Guilford.

McLean, K. C., & Pasupathi, M. (Eds.). (2010). *Narrative development in adolescence: Creating the storied self.* New York: Springer.

McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: Identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental Psychology, 42*, 714–722.

Pasupathi, M., & Hoyt, T. (2009). The development of narrative identity in late adolescence and emergent adulthood: The continued importance of listeners. *Developmental Psychology, 45*, 558–574.

Thorne, A. (1995). Developmental truths in memories of childhood and adolescence. *Journal of Personality, 63*, 139–163.

Thorne, A. (2000). Personal memory telling and personality development. *Personality and Social Psychology Review, 4*(1), 45–56.

National Identity

Eugene Tartakovsky
The Bob Shapell School of Social Work, Tel Aviv University, Tel Aviv, Israel

Overview

This essay presents an analysis of the nature of national identity in adolescents. The concept of "nation" is defined and the elements that compose what is called a "national identity" are described. The theoretical basis for applying social identity theory to understanding national identity in adolescents is elaborated, and relevant empirical studies are reviewed. The group

attachment theory of national identity is suggested, and its utility in explaining the effect of various socio-psychological variables on national identity in adolescents is analyzed. Developmental aspects regarding adolescents' national identity are discussed. In addition, the relationships between national identity, patriotism, and nationalism are analyzed. Finally, the essay considers issues related to the national identity of ethnic minorities and immigrants.

The Concept of "Nation"

Barrett and Davis (2008) define the concept of "nation" as a named human community that occupies its historic homeland, has a shared history, a common mass public culture, myths of common ancestry, shared symbols, traditions and customs, and demonstrates self-awareness as a nation. Usually, nations also have a common language, economy, and judicial system (Barrett 1996). A nation is an "imagined community," i.e., the nation's cohesiveness is not based on direct personal contact between its members; rather, the nation is based on a subjective sense of common identity and sense of belonging (Anderson 2006).

The nation is conceptually close to, albeit different from, two other large social groups: the ethnos (the ethnic group) and the state. Like nations, ethnic groups share a common language, a myth of common ancestry, symbols, traditions, and customs; however, ethnic groups usually lack a common territory, a shared economy, a system of mass communication and legislation (Barrett 2005). The term "state" is used to refer to a sovereign political entity in which a government uses a set of institutions to exercise an administrative monopoly over a territory, which has clearly demarcated borders, where the rule of that government is sanctioned by law, and where that government has the capacity to forcefully uphold its administrative policies (Giddens 1987). Using this terminology enables distinguishing between stateless nations (e.g., the Quebecois, Scots, and Basques), nation-states (e.g., Germany and Japan), and multination states (e.g., Canada, Britain and Spain) (Barrett et al. 2004). Many stateless nations actually had a state at some point in their history, but lost it and became part of a larger nation. Most states in the world are multiethnic but not multinational. Numerous ethnic groups live in their territory; however, they lack geographic national boundaries and other important features of nations. Some ethnic groups in different countries in the world have been struggling for their recognition as nations. Examples include the Native Americans in the USA; the Palestinians in Israel; and the Kurds in Iraq, Iran, and Turkey.

Membership in a particular nation may be defined according to two dimensions, representing two approaches: the ethnic-genealogical dimension (representing the primordial approach) and the civic-territorial dimension (representing the instrumental approach) (Rothi et al. 2005). The primordial approach most likely developed in countries with feudal economies and a strong totalitarian rule, such as Germany, Spain, Russia, and countries in Southern and Eastern Europe (Kohn 1994). This approach views a nation as a timeless natural entity that gradually evolved from prehistoric times. Membership in the nation is considered to be stable and dependent on lineage, language, religion, customs, and folklore; the main means of membership in the nation is through descent or ancestry. The primordial approach considers membership in a nation as based on inherent visible signs, such as facial appearance, skin color, and clothing as well as religious rituals (Dordevic 2007).

The instrumental or civic-territorial approach to defining the concept of nation first developed in the eighteenth century in countries with a strong bourgeoisie, where there was an established tradition of liberalism and decentralized rule, such as Great Britain, France, the United States, Switzerland, and the Netherlands. Central to the new ideology was the notion that every person, irrespective of religion, ethnic, or class background, could freely join the nation as long as he or she swore allegiance to a set of political principles and institutions representing the nation's values and objectives. The common national culture is based not on genealogical commonality but on shared components of political culture such as the rights and obligations of each citizen. Therefore, according to the instrumental approach, membership in a nation is based almost exclusively on juridical definitions of citizenship. The acquired behavioral characteristics, such as citizenship, language, voting behavior, adherence to specific values, and service to the country, became the primary indicators of membership in the nation (Carrington and Short 1998).

Empirical studies have confirmed that adolescents' perception of nation is based on both the traditional-cultural and civic components. In a study of British

students, the traditional-cultural dimension was found to relate to ancestry and national symbols, such as Christianity, allegiance to the Queen, and adherence to the traditional British way of life. The civic dimension was found to relate to the nation's civic practices, such as allegiance to the country, maintaining democracy, and fulfilling civil obligations (Rothi et al. 2005).

Cross-cultural studies have demonstrated that nations differ in their preference for ethnic vs. civic elements in their definition of belonging to the nation. Eastern European adolescents considered the cultural and ethnic criteria more important markers of nationhood than do Western adolescents, while the opposite holds for the civic-political dimension (Janmaat 2006). In addition, adolescents in Western countries stressed the importance of civil behavior (but not the genealogical factors) in defining good citizenship, such as voting, abiding by the law, and being well-informed about state affairs (Morse 1977). Finally, adolescents in Western countries perceived their sense of belonging to the nation as a varying attribute: they believed people can change their nationality by either moving to another country, learning that country's language, or being granted its passport (Carrington and Short 1998).

The Concept of "National Identity"

National identity may be defined as a set of cognitions and emotions that express an individual's relationship with a nation (Barrett and Davis 2008; Blank and Schmidt 2003). "National identity" is a subjective construct, differing from the concept of "nationality," which is an objective marker of an individual's belonging to a nation. Nationality is usually prescribed by the nation through official registration and issuing of relevant documents.

National identity is a complex concept that includes the following components (Barrett 2005):

1. A subjective conviction (self-categorization) as to which nation one belongs
2. A strong sense of national affiliation as part of the individual's identity
3. Emotions (positive or negative) toward the nation
4. Stereotypes about the typical characteristics and traits of people belonging either to their own national group or to other national groups
5. A subjective experience of inclusiveness and the perception of oneself as similar to other group members along important group-defining characteristics
6. Subjective opinions regarding the current aims and problems of the nation
7. Knowledge of and a willingness to internalize the national culture and values and to follow national behavioral norms

National identity is a social construct; therefore, it may change depending on psychosocial circumstances (Davis 1999; Moscovici 1988). Most people express some degree of national identity; however, its expression increases in situations where belonging to a nation becomes particularly salient, such as during international sport events, or when there is a potential threat to one's national identity, such as during a cross-cultural encounter (Carrington and Short 1998). Although most people have a single national identity, others, who either by birth or by choice, belonging to multiple nations may have separate national identities that relate to each of these nations. For example, people whose parents come from different nations, as well as first- and second-generation immigrants may have multiple national identities. Formal citizenship is a commonly used marker of national identity, but it is neither a necessary nor a sufficient condition for national identity. It is possible to develop a national identity that relates to a nation one does not belong to but wishes to belong to, while it is also possible to have a weak national identity relating to the nation one actually does belong to, as is often the case for immigrants (Blank and Schmidt 2003; Tartakovsky 2008).

Measures of National Identity

The most frequently studied components of national identity include identification with the nation, attitudes toward the nation, and national stereotypes. These components of national identity are measured using Likert-type scales, on which respondents are required to evaluate how accurately the scale items reflect their thoughts and feelings.

Identification with the nation reflects the degree to which the component of national identity figures in the overall identity of an individual. For example, a scale developed by Roccas (Roccas and Schwartz 1993) is comprised of the following four items: "Being of this

nationality is an important part of my self-definition"; "When I talk about this nation, I say 'we' and not 'they'"; "When this nation is criticized, I take it personally"; "It is important for me to think about myself as a member of this nation."

Attitudes toward the country reflect the individual's general evaluation of the country and emotions related to the country on a negative-positive continuum. The attitudes measured may be general or domain-specific (Smith and Kim 2006). A scale used to measure general attitudes toward the country may include items such as "I would rather be a citizen of this country than of any other country in the world," "There are some things about the country that make me ashamed of the country," "The world would be a better place if people from other countries were more like the citizens of this country," "Generally speaking, this country is a better country than most other countries" (Smith and Kim 2006). Domain-specific attitudes toward the country are measured with items that relate to the individual's sense of satisfaction and pride in various aspects of the country's functioning: the quality of the democratic government, economic achievements, and the social security system, as well as achievements in the fields of science, technology, culture, and sports (Smith and Kim 2006). The scales measuring general and domain-specific attitudes are highly positively correlated (0.74 in a study by Smith and Kim 2006). Researchers argue that since holding a global positive attitude toward the country is the norm, it is more susceptible to the social desirability bias, whereas domain-specific attitudes are based on rational thought and, therefore, should be less susceptible to the social desirability bias (Magun and Magun 2009). These assumptions, however, have not been tested empirically.

National stereotypes reflect the individual's opinions on other members of their nation and on members of other nationalities. National stereotypes consist of two main factors: competence and morality (Poppe 2001). The competence factor includes traits such as efficiency, intelligence, self-confidence, competitiveness, and clumsiness. The morality factor includes traits such as honesty, tolerance, modesty, aggressiveness, selfishness, and rudeness. Participants are asked to indicate how many representative of a national group possess each of these traits (from 0% to 100%).

Theories of National Identity

No theory that is exclusively dedicated to national identity currently exists. Theories are crucial for the development of science as they enable formulating research questions, guiding empirical tests of these questions, and explaining research results (Cornford 1991). Two general psychological theories are most commonly used to study national identity: social identity theory and the theory of group attachment. The following section presents these two theories, along with relevant empirical studies.

Social Identity Theory (SIT)

Social identity theory (Tajfel and Turner 1986) assumes that when individuals belong to a group, they form a group identity, which becomes part of their personal identity. The theory further assumes that the main factor affecting the formation of a group identity is the individual's need to increase self-esteem. Individuals usually succeed in enhancing their self-esteem by forming a positive attitude toward the group to which they belong. Social identity theory formulates three basic assumptions related to group identity (Brown 2000; Tajfel and Turner 1986). First, it argues that identification with a group leads to a more positive attitude toward the group; i.e., as individuals identify with a particular group, they will evaluate this group more positively as compared to other groups. The second assumption is of ingroup favoritism: liking the ingroup more than all other outgroups and describing the ingroup in more positive terms than the outgroups. Finally, SIT assumes that groups that have a lower status will apply a strategy of "social creativity": they will exhibit outgroup favoritism on the dimension where they are inferior to the other groups and ingroup favoritism on another dimension on which they perceive themselves to be better than the other groups. Based on these premises of social identity theory, the following theoretical hypotheses may be formulated regarding national identity (Barrett 2005):

1. People will evaluate their nation to be better than other nations, will like their nation more than other nations, and prefer their nation to other nations.
2. People who identify stronger with their nation will evaluate it more positively than those who have a weaker identification with their nation. Social identity theory does not present a clear indication

whether people who identify strongly with their nation will also negatively evaluate other nations.

3. People from poorer nations will exhibit outgroup favoritism on the competence dimension and ingroup favoritism on the moral dimension ("They are stronger but we are nicer").

Empirical Tests of the SIT Hypotheses

The first hypothesis (relating to ingroup favoritism) was confirmed in all countries where studies were conducted across all age groups. In a study that included young adolescents (aged 12–15) in six countries (Barrett and Davis 2008), the highest number of positive traits was always attributed to the respondents' own nation. In addition, ingroup favoritism was found when calculating the number of positive traits attributed to the ingroup minus the number of negative traits. Finally, young adolescents in all countries liked their own nation more than the other national groups.

Another study conducted in England investigated music consumption behaviors of 14–15-year-old adolescents when they compared themselves to adolescents from other European countries (Tarrant et al. 2004). This study found several manifestations of ingroup favoritism. First, the English adolescents attributed a greater amount of positive adjectives (intelligent, fun, friendly) and less negative adjectives (boring, snobbish, ignorant) to their conationals, as compared to what they attributed to the adolescents from the other European countries (Germany and France). Second, the English adolescents attributed finer musical tastes to adolescents from their own country, noting they are not as interested in the less popular musical styles (country, western, and classical) as compared to the adolescents from Germany and France.

A third study, in which Canadian undergraduate students (aged 18–20) were asked about their opinions regarding Canada and the USA, discovered that the students viewed their own country in a generally more positive way than they viewed the USA (Morse 1977). Outgroup favoritism has rarely been found in empirical studies; however, in one study, Italian young adolescents considered British adolescents more favorably than their own group (Barrett and Davis 2008).

In general, very little outgroup negativity has been found among adolescents. In a study by Barrett (2005), young adolescents in all of the European countries he studied attributed more positive than negative traits to both the ingroups and the outgroups. However, upon closer analysis, outgroup negativity was found when considering "traditional enemies," i.e., nations with whom there was a history of conflict, war, or occupation. Thus, young adolescents in Great Britain ascribed an equal number of positive and negative traits to their German peers (Barrett and Davis 2008). Adolescents from Azerbaijan and Georgia expressed strong negative feelings toward their Russian peers, and Greek adolescents expressed strong negative feelings toward Turks (Buchanan-Barrow et al. 1999, cited in Barrett 2005). Therefore, while a positive attitude toward one's own nation is almost universal, social and historical circumstances strongly affect adolescents' attitudes toward other nations.

Regarding the second hypothesis of SIT, empirical studies have unequivocally confirmed the existence of a positive correlation between national identification and national attitudes. Studies conducted among different age groups and in different countries have found that as adolescents identify with their nation to a greater degree, their attitude toward their nation becomes more positive and they prefer those who belonged to their national group (Barrett et al. 2004; Barrett and Davis 2008; Nigbur and Cinnirella 2007; Tarrant et al. 2004). At the same time, the connection between identification with one's nation and a negative attitude toward other nations was found only for "traditional enemies," such as Germans for English and Scottish adolescents (Barrett and Davis 2008), Turks for Greek adolescents (Buchanan-Barrow et al. 1999, cited in Barrett 2005), and Russians for the adolescents from Azerbaijan and Georgia (Barrett et al. 2004).

No evidence of the "social creativity" phenomenon was found in the context of adolescents' national identity. In a study conducted among 15–18-year-old adolescents in nine European countries (Poppe and Linssen 1999), the perceived morality of the nation was not related to its economic power. Rather, morality was found to be negatively correlated with perceived nationalism of the country, perceived responsibility of the country for conflicts in Europe, and the country's population size. European adolescents perceived English, Czech, and Hungarians to be the most moral, while Germans, Russians, and Italians were perceived to be the least moral nations in Europe. Adolescents from all of the countries studied saw themselves to be just as or

more moral than Germany and Italy (the countries perceived to be responsible for WWII), but not as moral as the English. Adolescents in Russia and Bulgaria attributed an equal or greater level of morality to the other European countries as compared to their own countries. In sum, the morality dimension of national stereotypes reflects the relationship between the nation and the countries' international policy.

Drawbacks of Applying SIT to Explain National Identity

After two decades of applying SIT to research on national identity, some drawbacks began to emerge. The first problem is that SIT views identification with the nation to be a natural, passive concept, best described using categorical variables. SIT does not explain how identification with a nation is formed, what factors affect this process, and why people differ in the extent to which they identify with their nation. SIT assumes that identification with a nation leads to a positive attitude toward the nation (Barrett et al. 2004). However, this causality has never been confirmed; it is equally possible that the reverse is true – that attitudes toward the nation affect national identification. The second problem lies in the underlying assumption held by SIT that the individuals' need for high self-esteem is the determining factor in forming their national identity. SIT does not take into account other psychological needs that may influence national identity, such as the need for self-efficacy, continuity, distinctiveness, belonging, as well as the need for control and autonomy (Eaton 2002). Finally, SIT does not adequately consider socioeconomical circumstances when explaining national identity; recent discoveries have found this variable to be essential in understanding national identity (Barrett and Davis 2008). Viewing national identity as a phenomenon of group attachment enables understanding the origin of national identity while also explaining the effect of various socioeconomic factors on national identity.

National Identity as a Form of Group Attachment

Attachment is defined as a subjective bond between an individual and an attachment object. Individuals develop attachment bonds because an attachment object provides them with a sense of security and satisfies their survival and developmental needs (Mikulincer and Shaver 2007). Most often, the attachment object is a significant figure in the individual's life: mother or another close relative, a friend, or a life partner. However, during adolescence and adulthood, certain security and developmental needs may be satisfied only through the collective; therefore, groups (e.g., ethnic and religious) may be considered to be attachment objects (Davis 1999; Kim 1999).

Nations satisfy the individual's needs in two important ways: They ensure physical survival and they satisfy the individuals' need for belonging (Mack 1983). Accordingly, researchers distinguish between instrumental and symbolic (or sentimental) aspects of attachment to a nation (Herek 1986; Kelman 1997; Mack 1983; Schatz and Lavine 2007; Terhune 1964). Instrumental attachment reflects the degree of the individuals' satisfaction with the way the nation functions, i.e., the efficiency of its social, political, and economic institutions, and the perceived capability of those institutions to provide instrumental benefits to the citizens of the nation and to satisfy their concrete needs. These needs are mostly economic, but the nation (especially when in the form of a state) also provides protection from perceived external threats (Mack 1983; Schatz and Lavine 2007). Instrumental attachment to the nation enables individuals to participate in national organizations, thus enhancing one's personal status within the system and satisfying both survival and developmental needs (DeLamater et al. 1969).

Symbolic (or sentimental) attachment reflects the individuals' need for belonging, confirming one's identity and enhancing self-esteem through identification with the nation (Herek 1986; Kelman 1997). Identification with the nation enables expressing one's own personal values and being recognized by others who also belong to the nation. The reverse also holds true: When the nation (or its representatives) behaves according to certain values that are held by the individual, identification with the nation promotes self-enhancement (Mack 1983). In addition, symbolic attachment to the nation, expressed as identification with the nation, provides individuals with a sense of meaning and purpose in life, buffering them against existential anxiety (Schatz and Levine 2007). Instrumental attachment mostly relates to the attitudinal aspect of national identity and the competence stereotypes, while symbolic attachment is mostly associated

with identification with the nation and with the moral aspect of national stereotypes.

In general, the group attachment theory of national identity assumes that socioeconomic circumstances profoundly affect the individuals' national identity. The following specific hypotheses may be formulated:

1. The national education system will have a profound effect on the national identity of adolescents. In addition, parents' views and values will affect the national identity of their children.
2. Benign socioeconomic conditions in a country, and hence, greater satisfaction of one's basic needs, will be associated with a strong identification with and a more positive attitude toward the nation. Socioeconomic conditions will have a stronger effect on the individuals' attitudes toward the nation than on their identification with the nation.
3. Among adolescents, there will be a positive association between good relationships with parents, peers, and teachers and a strong national identity.

Factors Affecting National Identity

The Effect of Education

States require their citizens to adopt a shared sense of nationhood as a prerequisite for the success and survival of the state. The state will not be able to exercise authority over its citizens unless they perceive themselves to be members of a national collective and are willing to make sacrifices for the good of the nation, such as paying taxes or serving in the army. The education system, along with the media and other state institutions, plays a significant role in constructing and imposing national identities and creating national myths, defining values, national goals, and behavioral norms. However, despite its obvious importance, the role of education in forming national identity has hardly been studied empirically (Eaton 2002).

Researchers distinguish between patriotic education and critical education. The main goal of patriotic education is to increase the students' feelings of pride and respect for the country and its associated institutions, such as the church, the army, the authority figures (the King, President or Prime Minister), and national symbols (Rapoport 2009). Patriotic education glorifies national history and the present (see Tartakovsky 2010a, for a review). Military education in school and a militarized consciousness are inseparable components of a patriotic education (Rapoport 2009). Patriotic education aims to develop a sense of patriotic consciousness, where the state is the ultimate value, and where state interests take priority over the personal interests of its citizens (Rapoport 2008, 2009). A critical education does not glorify or mythologize state history. A critical education places the values of democracy and civil society above those of the state, while offering a critical appraisal of the state's military history and the present effect of the military on the country's youth. A critical education places personal interests over the interests of the state (Rapoport 2009).

Followers of both educational concepts claim that their approach aims to strengthen the national identity of young people. Little empirical research has been conducted regarding the effect of educational content on national identity; however, the results of several studies indicate that patriotic education strengthens national identity, while a critical education weakens the national identity of adolescents. Studies that compared national identity in different European countries found that Germans hold a relatively negative attitude toward their country and report a weak identification with the nation, which probably results from the critical approach to German history taught in schools (Barrett and Davis 2008; Pollmann 2008). A two-cohort study conducted in Russia and Ukraine in 1999–2007 demonstrated that since the onset of a new curricula of patriotic education accepted in 2000, there has been an improvement in the high-school adolescents' attitudes toward these countries (Rapoport 2008, 2009; Tartakovsky in press). However, while patriotic education at school may strengthen the national identity of students, a study conducted among older adolescents in Spain demonstrated that a higher education may be associated with a weaker national identity, as expressed in a lower sense of belonging to and a less positive attitude toward the country (Bollen and Medrano 1998). It is likely that higher education develops a general critical mindset; in addition, people with a higher education may have access to more information and thus be able to compare conditions between countries in a more realistic way.

The effect of education on national identity is especially strong in ethnically divided states, such as Israel, Cyprus, or Northern Ireland. In these countries, the educational systems are built separately for each ethnic

group, and they become instruments in building separate national identities (Philippou 2005; Tartakovsky 2010a). In such countries, children and adolescents learn to construct "the other" ethnic group as the enemy (Bar-Tal and Teichman 2009). School discourse is nationalistic, and it emphasizes shared national attributes such as language, religion, and history, instilling a psychological boundary separating "us" from "them" (Philippou 2005). In countries rife with conflict, children are often socialized through the educational system to comprehend national identity in almost purely primordial ethnic-cultural terms, as a common kinship based on descent, bonds of blood, religion, language, culture, habits, and customs. Moreover, children are taught to draw a causal link between cultural and political attitudes and behavior (Carrington and Short 1998).

The Effect of Economics

A cross-cultural study conducted among 15–18-year-old adolescents in nine European countries demonstrated that the level of economic development in both the adolescents' native country and in the country of comparison affected the adolescents' competence stereotypes (Poppe and Linssen 1999). In general, the degree to which adolescents perceived people from their country to be more competent than people from other countries was positively correlated with the economic power and population size of their country and was negatively correlated with the economic power and size of the outgroup. However, adolescents in Central and Eastern European countries perceived their country to be more competent when comparing their country with other Central or Eastern European nations, but not with the Western European nations. People in Western countries were universally perceived as the most competent in Europe, while people in Belarus, Russia, and Bulgaria were perceived as the least competent.

Another study, conducted among 15–16-year-old high-school adolescents in Russia and Ukraine (Tartakovsky in press), demonstrated that Russian adolescents had a more positive attitude toward and had a stronger identification with their country than Ukrainian adolescents. A possible explanation for this finding may be that Russia is a more economically developed country than Ukraine (Legatum Institute 2009). Therefore, the results of empirical studies demonstrate that a realistic appraisal of the economic power of the adolescents' own country and of the country of comparison affects both their ingroup and outgroup competence stereotypes.

The effect of the economic changes in a country on the adolescents' national identity has not received much research attention. Two studies that have focused on this issue have provided inconsistent results. A study conducted by Poppe (2001) in nine European countries compared economic conditions and the competence stereotypes in 1994 and in 1995; no change in perceived competence was found. Another study conducted by Tartakovsky (in press) in 1999–2007 in Russia and Ukraine found an improvement in the adolescents' attitudes toward their countries that followed an improvement in the economic conditions in their country; however, no change in degree of identification with the nation was found. It is probable that because of the short time distance in the first study, the economic changes were not prominent enough to affect the adolescents' national stereotypes. The results of the second study, where economic changes were very substantial, corroborate the theory of group attachment to the nation whereby adolescents develop a more positive attitude toward the country that better satisfies their instrumental needs (Davis 1999; Kelman 1997; Schatz and Lavine 2007).

The Influence of Parents and Peers

The influence of parents on the national identity of their children is both direct and contextual. Parents directly teach their children how they should build their relations with their native country and with other nations. Children receive from their parents emotionally colored information about their own and other nations. Children also hear, memorize, and repeat the parents' expressions regarding their own and other nations. In addition, parents encourage or forbid their children's interaction with children from other national groups. In bilingual regions, parents affect the children's use of language, choosing which language is used at home and, wherever possible, the language of their educational institution (e.g., Reizabal et al. 2004; Bollen and Medrano 1998). The parents' influence on the national identity of their children is probably strongest in nations that are in conflict with their neighbors. Thus, studies conducted in North Ireland demonstrated that Catholic parents instill in their children

their own negative feelings against the Protestant British (Muldoon et al. 2007a). A similar effect of the parents' influence on their children's national identity was found in Cyprus (Philippou 2005).

In addition to the direct effect on their children's national identity, the parental effect is also contextual. When developing attachment to their parents, children build an internal representation (an internal working model) of their parents (Mikulincer and Shaver 2007). Children then generalize the model based on their relations with their parents to their relations with the nation. A series of studies conducted in Russia, Ukraine, and Israel confirmed that a more positive internal working model of the respondents' mothers was associated with a more positive attitude toward the country but not with a greater identification with the nation (Walsh and Tartakovsky in preparation).

The effect of peers on adolescents' national identity may also be either direct or contextual. Good relationships with peers satisfy the adolescents' need to belong and, thus, encourage them to form a more positive attitude toward the country. In addition, a positive internal model of relationships with peers may be transferred onto the entire nation. A recent study confirmed that high-quality peer relations were associated with a positive attitude toward the country and with a strong identification with the nation among high-school adolescents (Tartakovsky in press). In addition, high-school adolescents who formed secure attachments with their peers reported a more positive attitude toward their country than adolescents with an insecure attachment style (Walsh and Tartakovsky in preparation).

Developmental Aspects of National Identity

Children and adolescents develop their national identity according to their maturing cognitive abilities and their socialization at home and in school. Children begin to categorize themselves as members of their own national group from about age 5, and at about the same age, they also begin to form ingroup national favoritism (Barrett et al. 2004; Reizabal et al. 2004). Studies conducted in countries, which are in conflict with their neighbors (such as Cyprus, Israel, and the republics of the former Yugoslavia) showed that dislike for the rival nation is also formed during the preschool years (Bar-Tal and Teichman 2009; Barrett et al. 2004).

The importance that children attribute to their national identity, as well as their degree of identification with their national group, tends to increase between age 5 and 12 (Barrett et al. 2004). From age 5 to 12, children's knowledge of national symbols, leaders, and typical characteristics of their fellow nationals increases (Moodie 1980). In addition, children's understanding as to who belongs to other national groups also increases, and by age 12, children are able to produce a detailed description of the characteristics exhibited by members of their own and other national groups, including their typical physical features and appearance, clothing, language, behavioral habits, psychological traits, and political and religious beliefs. At 12 years of age, children rank the degree to which they prefer different national groups, an order that remains relatively stable. At the same time, no consistent pattern of age-related changes in national identity from age 5 to 15 has been found, and the pattern of changes differs from country to country (Barrett and Davis 2008).

In early adolescence (from age 12 to 16), a positive attitude toward the national ingroup somewhat decreases; however, ingroup favoritism is always maintained (Muldoon et al. 2007b). It seems that during these years, children learn that people in all national groups possess both positive and negative personality traits (Reizabal et al. 2004). Another finding that supports this notion is that as age increases, children attribute less homogeneity to the various groups (Barrett and Davis 2008).

Young children tend to construct their national identity based on overt information, referring mostly to place of birth, geographical location (living in a particular country), language, and ties of consanguinity (Barrett 2005). Older children and adolescents are able to discern more covert signs of national identity, such as a sense of belonging and allegiance to the nation (Carrington and Short 1998).

Studies that investigated changes in adolescents' national identity as they entered college have yielded inconclusive results, perhaps indicating the process varies cross-culturally. One study, conducted in Northern Ireland, found no change in the national identity of adolescents who transitioned from school to college (Cassidy and Trew 2004). However, in another study conducted in Los Angeles, college students had higher patriotism scores than the high-school students,

while their nationalism scores tended to be lower than those of the high-school sample. This last finding perhaps indicates a more critical attitude toward one's own nation that develops in college (Kosterman and Feshbach 1989).

In most countries, for both children and adolescents, age, gender, and peer group identities are more important than their national identity (Tarrant et al. 2004). However, in some countries where an acute conflict exists with the neighboring nation (e.g., Cyprus), national identity was more important for the adolescents than even their gender identity (Philippou 2005). These findings indicate that in peaceful countries, children and adolescents perceive their nation to be a rather abstract concept that is remote from their everyday lives. However, even in "good enough" developmental conditions, national identity affects some important aspects of the adolescents' lives.

Behavior, Feelings, and Attitudes Affected by National Identity

National identity affects overt behavior as well as the attitudes and feelings of adolescents. Overt behavior affected by national identity includes cultural practices and activities that demonstrate the individuals' loyalty to the nation (Reizabal et al. 2004). In one study, a stronger national identity was associated with increased participation in ritualistic-ceremonial national activities such as parades, celebration of national holidays, singing patriotic songs in public, and flag waving (Druckman 1994, cited in Davis 1999). Among adolescents belonging to ethnic minorities and immigrant groups, those adolescents whose national identity was stronger preferred the official national language for communicating with their peers and parents. In addition, they used the national mass media more often, and preferred contacts with peers belonging to the country's majority group (Berry et al. 2006; Tartakovsky under review). However, the causality may be circular: Increased engagement in national cultural practices as well as greater exposure to national symbols may lead to a stronger national identity, for it strengthens contact with conationals and increases the saliency of the national group. In addition, the presence of others may intensify the demand for expressing a strong national identity (Schatz and Levine 2007).

An important theoretical and practical question is how national identity corresponds with patriotism and nationalism. All three concepts reflect the individuals' feelings toward the nation. However, patriotism, in addition to a positive attitude toward and feelings of love and pride related to the nation, also assumes the readiness to sacrifice one's own interests for the welfare of the nation (Schatz et al. 1999). Nationalism is similar to patriotism in its positive affect regarding one's nation; however, unlike patriotism, nationalism assumes an uncritical acceptance of national history and a refusal to consider national responsibility for injustices committed and negative attitudes toward other nations. Nationalism is also characterized by right-wing attitudes that support conservative leaders and policies, militarism, and anti-internationalism (Blank and Schmidt 2003; Kosterman and Feshbach 1989; Schatz and Lavine 2007). Finally, nationalists tend to define national identity based on objective criteria such as country of birth, race, descent, and language, while patriotism also considers subjective criteria, critically views national history, and allows ambiguity regarding national borders (Blank and Schmidt 2003; Kosterman and Feshbach 1989).

Recent studies that tested the relationships between these three concepts revealed that national identity is strongly positively correlated with both patriotism and nationalism (Blank and Schmidt 2003). Patriotism was found to be negatively correlated with outgroup devaluation and anti-Semitism, while nationalism was positively correlated with these two variables. In addition, a strong national identity and nationalism, but not patriotism, were correlated with a negative attitude toward immigrants (Janmaat 2006). Finally, national identity, patriotism, and nationalism were all associated with a strong positive affective orientation toward national symbols, such as the flag and anthem, and with high respect for national leaders (Kosterman and Feshbach 1989). Cross-cultural studies indicate that the differences in the strength of national identity may influence voting behavior and national policies. For example, national identity in Britain is much weaker than in France. This may help explain the increased support for right-wing extremists and nationalistic actions (such as banning the veil for Moslem women), in France as compared to Britain (Carrington and Short 1998).

National Identity of Ethnic Minorities and Immigrants

Ethnic minorities and immigrants, in addition to the nation they share with the ethnic majority, have an alternative group with which they are affiliated: for ethnic minorities, it is their ethnic group, and for immigrants and their descendants, it is their immigrant group in the host country and their nation of origin. This situation forces ethnic minorities and immigrants to determine their position vis-à-vis not one but two or even more large groups and to build multiple cultural identities. The question that arises is how these multiple identities relate to each other, and how they are affected by various psychosocial factors.

Developmental studies indicate that children from ethnic minorities develop their multiple national identity only at about age 11, while their peers, who belong to the majority ethnic group, develop their single national identity at a younger age (Carrington and Short 1998; Tartakovsky 2010b). One explanation is that preschool and early school teachers perhaps emphasize the common national identity of the children and begin discussing the differences between national and ethnic identities at only a later age. Another explanation relates to the increased cognitive ability, which is necessary to formulate a complex multiple national identity. However, these processes require further research.

Empirical studies have almost unanimously found that national identity is less salient for ethnic minorities and immigrant adolescents than their ethnic identity, and that ethnic minorities and immigrants identify more with their ethnic group than with the nation (Barrett and Davis 2008; Phinney et al. 2001; Tartakovsky 2008). In addition, the national identity of ethnic minorities and immigrant adolescents has been found to be less salient as compared to their peers belonging to the ethnic majority, a finding that was replicated in many countries. For instance, white English adolescents attributed significantly higher importance to their British national identity than British adolescents of Asian descent and Scottish adolescents (Barrett 2000). Black and colored youth in South Africa reported a stronger sense of belonging to South Africa and a more positive perception of South Africa, as compared to white and Indian youth living there (Eaton 2002; Norris et al. 2008). For Andalusian adolescents, being Spanish was of much greater importance than for the Catalan adolescents (Barrett et al. 2004; Bollen and Medrano 1998). Finally, high-school adolescents in Russia and Ukraine who had at least one non-Russian or non-Ukrainian parent reported a weaker identification with and a less positive attitude toward their country as compared to adolescents whose parents both belonged to the ethnic majority in these countries (Tartakovsky in press).

Researchers suggest two main explanations for these findings. First, both ethnic majorities and minorities at least partly define national identity in racial and ethnic terms, i.e., they associate national identity mostly with the dominant racial and ethnic group, such as whites in the USA and Great Britain, blacks in South Africa, and Russians in Russia (Barrett 2005; Devos and Banaji 2005; Tartakovsky in press). In this way, the accepted national identity does not include any symbolic markers of the minority group identity, which in turn makes it more difficult for racial and ethnic minorities to identify with the nation (Sibley and Liu 2007). Second, minority groups usually feel discriminated against by the majority; thus, affiliation with the nation does not satisfy their instrumental needs to the same extent as it does for the majority group, and they develop a less positive attitude toward the nation as compared to the majority group (Sibley and Liu 2007; Tartakovsky 2009; Tartakovsky in press). Indeed, empirical studies have confirmed that perceived discrimination is the main factor negatively affecting the national identity of ethnic minorities and immigrants (Phinney et al. 2001; Tartakovsky 2009).

How the ethnic and national identities of ethnic minorities and immigrants relate to each other: are they contradictory (negatively correlated), complementary (positively correlated), or independent? Empirical studies have indicated that the relations between ethnic and national identities vary widely across nations: Positive, negative, and zero correlations have been found in different groups of ethnic minorities and immigrants (Phinney et al. 2001; Verkuyten and Brug 2001; Tartakovsky 2009). Moreover, a study conducted at two time points in the same minority population (Jewish adolescents in Russia and Ukraine) found that the relationship between ethnic and national identities may change over time: A strong Jewish identity was negatively correlated with

a strong Russian and Ukrainian identity in 1999, but 8 years later, in 2007, the two identities were independent (Tartakovsky 2008). Therefore, the relationship between the ethnic and national identities of the adolescents depended on their perception of hostility (or peaceful coexistence) between the majority and minority groups, which may change with time.

Studies conducted in various immigrant and ethnic minority groups have also found that the relative salience of ethnic and national identities is contextually bound. Most often, the ethnic identity of minority and immigrant adolescents strengthens when they are with people from their ethnic group, while their national identity strengthens when they are with the majority group. Thus, in school, minority and immigrant adolescents report a stronger national identity than at home (Berry et al. 2006; Carrington and Short 1998).

Conclusion

Research on the national identity of adolescents is a rapidly developing topic in social psychology. Research in this field is important for both theoretical and practical reasons. Theoretically, research on national identity may promote understanding psychological processes in large groups. Practically, national identity is important because it is closely related to adolescents' civil behavior, such as voting and military service. Many issues related to national identity constitute promising directions of psychological research. Little is known about the effect of socio-political changes on adolescents' national identity, especially in countries that have transitioned from a totalitarian regime to a democratic regime. The connection between national identity and the psychological adjustment of adolescents also remains unclear: Do well-adjusted adolescents develop a stronger national identity or does national identity serve as a defensive coping mechanism for socially maladjusted adolescents? The influence of personal values on the national identity of adolescents is another unexplored research direction. Theoretically, it may be assumed that adolescents who hold more collectivistic values will have a stronger national identity; however, no empirical studies have been conducted on this issue. Cross-cultural studies to help understand the effect of various ecological (i.e., country level) variables on the adolescents' national identity are also lacking. Finally, the creation of supranational unions, such as the European Union, presents a new socio-cultural context for studying the national identity of adolescents.

Cross-References

► Immigration

References

Anderson, B. (2006). *Imagined Communities.* London, New York: Verso.

Barrett, M. (1996). English children's acquisition of a European identity. In G. L. Breakwell & E. Lyons (Eds.), *Changing European identities: Social psychological analysis of social change* (pp. 349–369). Oxford: Butterworth-Heinemann.

Barrett, M. (2000). The development of national identity in childhood and adolescence. Inaugural lecture presented at the University of Surrey, March 22, 2000. www.surrey.ac.uk/Psychology/staff/MBarrett.htm

Barrett, M. (2005). National identities in children and young people. In S. Ding & K. Littleton (Eds.), *Children's personal and social development* (pp. 181–220). Milton Keynes: The Open University/Blackwell.

Barrett, M., & Davis, S. C. (2008). Applying social identity and self-categorization theories to children's racial, ethnic, national and state identifications and attitudes. In S. M. Quintana & C. McKown (Eds.), *Handbook of race, racism and the developing child* (pp. 72–110). Hoboken: Wiley.

Barrett, M., Lyons, E., & del Valle, A. (2004). The development of national identity and social identity processes: Do social identity theory and self-categorization theory useful heuristic frameworks for developmental research? In M. Bennett & F. Sani (Eds.), *The development of social self* (pp. 159–188). Hove: Psychology.

Bar-Tal, D., & Teichman, Y. (2009). *Stereotypes and prejudice in conflict: Representations of Arabs in Israeli Jewish society.* Cambridge: Cambridge University Press.

Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology: An International Review, 55*(3), 303–332.

Blank, T., & Schmidt, P. (2003). National identity in a united Germany: Nationalism or patriotism? An empirical test with representative data. *Political Psychology, 24*(2), 289–312.

Bollen, K., & Medrano, J. D. (1998). Who are the Spaniards? Nationalism and identification in Spain. *Social Forces, 77*(2), 587–622.

Brown, R. J. (2000). *Group Processes: Dynamics within and between groups* (2nd ed.). Oxford: Blackwell.

Carrington, B., & Short, G. (1998). Adolescent discourse on national identity – voices of care and justice? *Educational Studies, 24*(2), 133–154.

Cassidy, C., & Trew, K. (2004). Identity change in Northern Ireland: A longitudinal study of students' transition to university. *Journal of Social Issues, 60*(3), 523–540.

Cornford, F. M. (1991). *From religion to philosophy: A study in the origins of western speculation.* Princeton: Princeton University Press.

Davis, T. C. (1999). Revisiting group attachment: Ethnic and national identity. *Political Psychology, 20*(1), 25–47.

DeLamater, J., Katz, D., & Kelman, H. C. (1969). on the nature of national involvement: A preliminary study. *Journal of Conflict Resolution, 13*, 320–357.

Devos, T., & Banaji, M. R. (2005). American = white? *Journal of Personality and Social Psychology, 88*, 447–466.

Dordevic, J. M. (2007). Primordialistic concept of national identity in Serbia. *Psihologija, 40*(3), 385–397.

Eaton, L. (2002). South African national identity: A research agenda for social psychologists. *South African Journal of Psychology, 32*(1), 45–53.

Giddens, A. (1987). The nation-state and violence. California University Press.

Herek, G. M. (1986). The instrumentality of attitudes: Toward a neofunctional theory. *Journal of Social Issues, 43*, 99–114.

Janmaat, J. G. (2006). Popular conceptions of nationhood in old and new European member states: Partial support for the ethnic-civic framework. *Ethnic and Racial Studies, 29*(1), 50–78.

Kelman, H. C. (1997). Nationalism, patriotism, and national identity: Social-psychological dimensions. In D. Bar-Tal & E. Staub (Eds.), *Patriotism in the lives of individuals and nations* (pp. 165–189). Chicago: Nelson-Hall.

Kim, O. (1999). Mediation effect of social support between ethnic attachment and loneliness in older Korean immigrants. *Research in Nursing & Health, 22*, 169–175.

Kohn, H. (1994). Western and eastern nationalism. In J. Hutchinson & A. D. Smith (Eds.), *Nationalism* (pp. 162–165). Oxford: Oxford University Press.

Kosterman, R., & Feshbach, S. (1989). Toward a measure of patriotic and nationalistic attitudes. *Political Psychology, 10*(2), 257–274.

Legatum Institute. (2009). The Legatum Prosperity Index. http://www.prosperity.com/prosperiscope.aspx?sel = RS,UP&year = 2009&index = prosperity. Retrieved on 10th January 2010.

Mack, J. E. (1983). Nationalism and the self. *Psychohistory Review, 11*(2–3), 47–69.

Magun, V., & Magun, A. (2009). Feeling of affiliation with a country and pride for its achievements: Russian data in the context of international comparison. www.polit.ru/science/2009/03/26/honor.html (in Russian). Retrieved on 11th January 2010.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford.

Moodie, M. A. (1980). The development of national identity in white South African schoolchildren. *The Journal of Social Psychology, 111*, 169–180.

Morse, S. J. (1977). Being a Canadian: Aspects of national identity among a sample of university students in Saskatchewan. *Canadian Journal of Behavioral Sciences, 9*(3), 265–273.

Moscovici, S. (1988). Notes towards a description of social representations. *European Journal of Social Psychology, 18*, 211–250.

Muldoon, O. T., McLaughlin, L., & Trew, K. (2007a). Adolescents' perceptions of national identification and socialization: A grounded analysis. *British Journal of Developmental Psychology, 25*, 579–594.

Muldoon, O. T., Trew, K., Todd, J., Rougier, N., & McLaughlin, K. (2007b). Religious and national identity after the Belfast Good Friday Agreement. *Political Psychology, 28*(1), 89–103.

Nigbur, D., & Cinnirella, M. (2007). National identification, type and specificity of comparison and their effects on description of national character. *European Journal of Social Psychology, 37*, 672–691.

Norris, S. A., Roeser, R. W., Richter, L. M., Lewin, N., Ginsburg, C., Fleetwood, S. A., et al. (2008). South African-ness among adolescents: The emergence of a collective identity within the birth to twenty cohort study. *The Journal of Early Adolescence, 28*(1), 51–69.

Philippou, S. (2005). Constructing national and European identities: the case of Greek-Cypriot pupils. *Educational Studies, 31*(3), 293–315.

Phinney, J. S., Horenczyk, G., Liebkind, K., & Vedder, P. (2001). Ethnic identity, immigration, and well-being: An interactional perspective. *Journal of Social Issues, 57*, 493–510.

Pollmann, A. (2008). National attachment among Berlin and London head teachers: The explanatory impact of national identity, national pride, and supranational attachment. *Educational Studies, 34*(1), 45–53.

Poppe, E. (2001). Effects of changes in GNP and perceived group characteristics on national and ethnic stereotypes in Central and Eastern Europe. *Journal of Applied Social Psychology, 31*(8), 1689–1708.

Poppe, E., & Linssen, H. (1999). In-group favoritism and the reflection of realistic dimensions of difference between national states in central and eastern European national stereotypes. *The British Journal of Social Psychology, 38*, 85–102.

Rapoport, A. (2008). *Similar rhetoric, different goals: Contemporary tendencies in patriotic education in Russia and Ukraine*. Paper presented at the 52nd Annual Conference of Comparative and International Education Society, New York, March 2008.

Rapoport, A. (2009). Patriotic education in Russia: Stylistic move or a sigh of substantive counter-reform? *Educational Forum, 73*, 141–152.

Reizabal, L., Valencia, J., & Barrett, M. (2004). National identifications and attitudes to national ingroups and outgroups amongst children living in the Basque Country. *Infant and Child Development, 13*, 1–20.

Roccas, S., & Schwartz, S. H. (1993). Effects of intergroup similarity on intergroup relations. *European Journal of Social Psychology, 23*, 581–595.

Rothi, D. M., Lyons, E., & Chryssochoou, X. (2005). National attachment and patriotism in a European nation: A British study. *Political Psychology, 26*(1), 135–155.

Schatz, R. T., & Lavine, H. (2007). Waving the flag: National symbolism, social identity, and political engagement. *Political Psychology, 28*(3), 329–355.

Schatz, R. T., Staub, E., & Lavine, H. (1999). On the varieties of national attachment: Blind versus constructive patriotism. *Political Psychology, 20*(1), 151–174.

Sibley, C. G., & Liu, J. H. (2007). New Zealand = bicultural? Implicit and explicit associations between ethnicity and nationhood in the New Zealand context. *European Journal of Social Psychology, 37*, 1222–1243.

Smith, T. W., & Kim, S. (2006). National pride in comparative perspective: 1995/96 and 2003/04. *International Journal of Public Opinion Research, 18*(1), 127–136.

Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago: Nelson-Hall.

Tarrant, M., North, A. C., & Hargreaves, D. J. (2004). Adolescents' intergroup attributions: A comparison of two social identities. *Journal of Youth and Adolescence, 33*(3), 177–185.

Tartakovsky, E. (2008). Psychological well-being and ethnic identities of Jewish adolescents planning emigration from Russia and Ukraine to Israel: Changes during the post-perestroika period. *International Journal of Intercultural Relations, 32*(6), 553–564.

Tartakovsky, E. (2009). Cultural identities of adolescent immigrants: A three-year longitudinal study including the pre-migration period. *Journal of Youth and Adolescence, 38*(5), 654–671.

Tartakovsky, E. (2010a). Teaching ethnic history in school: experience from the West and the case of Jewish history in the former Soviet Union: a literature review. *International Journal of Jewish Education Research, 2*, 81–96.

Tartakovsky, E. (2010b). Found in transition: An acculturation narrative of immigration from the Former Soviet Union to Israel. *Culture & Psychology, 16*(3), 15–27.

Tartakovsky, E. (in press). National identity of high-school adolescents in an era of socio-economic change: Russia and Ukraine in the post-perestroika period. *Journal of Youth and Adolescence.*

Tartakovsky, E. (under review). Factors affecting immigrants' acculturative behavior: A theoretical model and its testing among adolescent immigrants from Russia and Ukraine in Israel.

Terhune, K. W. (1964). Nationalism among foreign and American students: An exploratory study. *Journal of Conflict Resolution, 8*, 256–270.

Verkuyten, M., & Brug, P. (2001). Self-esteem and ethnic and national identification among adolescents in the Netherlands. *International Journal of Adolescence and Youth, 9*(4), 321–343.

Walsh, S., & Tartakovsky, E. (in preparation). How attachment to parents and peers affect national identity of high-school adolescents?

Natural Disasters

Nilamadhab Kar
Wolverhampton City PCT, Corner Houser Resource Centre, Wolverhampton, UK

Overview

Natural disasters are common; they are catastrophic stressors with multiple short-and long-term influences on life that can impact adolescents in various ways. Adolescents are particularly vulnerable to the effects of disaster considering that adolescence is a key formative developmental period. There are many symptoms, clinical diagnoses, and psychosocial sequel observed in the adolescents following disasters. There is a growing body of literature on effective interventions for these presentations. A systematic study of these will help in the identification, prevention, and management of the post-disaster sequel, which will help affected adolescents become resilient to the ordeal of disasters and lead a quality of life less limited by the effects of trauma.

Introduction

Adolescents are at a higher risk to the effects of a natural disaster and may suffer lasting consequences in the form of psychological morbidity and the development of negative health behaviors due to their exposure (Wagner et al. 2009). Many post-disaster studies have identified adolescents as a group with specific vulnerability for disaster trauma (Kar et al. 2004; Goenjian et al. 2005; Hardin et al. 1994). It is partly because adolescence is one of the most crucial formative period in the process of development of not only cognitive schema and personality traits but also career and relationship building. Coping mechanisms that could be effective in long term usually are not properly in place. Significant traumas and losses have very different meaning and impact on an adolescent than persons in other age groups; one cannot generalize findings related to adults for adolescents (Kar et al. 2001). In addition, there is little understanding of adolescents' appraisal of stress and crisis intervention following exposure to a natural disaster (Grant et al. 1997). All these factors suggest the importance of further research in this area.

Psychiatric Sequel

A range of psychosocial sequel has been described in adolescents following the trauma of natural disasters. Most commonly reported ones are posttraumatic stress disorder (PTSD), depression, and anxiety disorders. In addition, there are reports of increased conduct problems, substance use, and relational problems following natural disasters. Most of the adolescents have combination of various diagnoses (comorbidities). Besides syndromal diagnoses, there are many symptoms of psychological distress, e.g., irritability, anger, aggression, insomnia, anxiety, depression, and lack of concentration observed in a considerable proportion of adolescents (Marsee 2008; Grant et al. 1997). Mental

health problems of children and adolescents after the disaster may consist of at least two different components; "fear and anxiety," which appears just after the disaster and decreases earlier; and "depressive and psychophysical symptoms," which appear later and stay longer (Shioyama et al. 2000).

Disaster exposure in adolescence can have far-reaching consequences in adulthood. Studies examining the impact of childhood disaster exposure on the development of adult psychopathology report increased rates of PTSD and other psychopathology. A higher proportion of bushfire survivors met criteria for "any DSM-IV (Diagnostic and Statistical Manual) disorder and; any anxiety" (McFarlane and Van Hooff 2009).

Under-recognition of psychiatric manifestation in adolescents following disasters have been a major concern (Kar et al. 2007). This suggests specific attention during assessment of adolescents following disasters. Use of screening tools for depression, PTSD, and other clinical entities may be of help. Without proper recognition, many adolescents may continue to suffer silently for long periods, which may impact their functioning, quality of life, and growth of future potential. Three negative health outcomes that are of particular concern due to their potential to cause long-term morbidity: posttraumatic stress disorder, substance use disorder, and HIV-risk behavior (Wagner et al. 2009).

Prevalence

Prevalence of various syndromal psychiatric disorders in adolescents following natural disasters vary considerably in the studies examining this issue. The variations are secondary to the nature of disaster, degree of exposure, duration of time between disaster and the study, and other factors including also probably the methodology adopted. It is essential to understand the reported prevalence for an overview of the magnitude of the mental health issues.

One illustrative study was conducted after an earthquake. In Ano Liosia, Greece, 3 months after the 1999 earthquake, the estimated rates of PTSD and clinical depression for both cities combined were 4.5% and 13.9%, respectively (Roussos et al. 2005). After a wildfire disaster, severe or very severe PTSD was reported by 9.0% of students, while 22.6% scored in the abnormal range on the Emotional Symptoms subscale of the Strength and Difficulties Questionnaire (McDermott et al. 2005). Ten months after the tsunami disaster, in Thailand, 50% had at least one psychiatric diagnosis: PTSD (33%), major depression (9.6%), adjustment disorder (9.6%), and separation anxiety disorder (3.2%) (Piyavhatkul et al. 2008).

Another illustrative study followed the tsunami disaster in Thailand. The prevalence of psychiatric disorders at 1 year after the tsunami disaster in Thailand was 10.4% of all the students or 33.1% of victims. The prevalence of psychiatric disorders in grade 4–6 and 7–9 students was higher than in kindergarten and grade 1–3 students. The most common psychiatric problem is posttraumatic stress disorder (Piyasil et al. 2008). One year after a super-cyclone in Orissa, India, prevalence of PTSD was 30.6% (95% confidence interval: 26.4–34.9), and an additional 13.6% had subsyndromal PTSD. Parents or teachers reported mental health concerns in 7.2% subjects, who were a minor proportion (12.8%) of subjects with any syndromal diagnosis. Depression was significantly associated with PTSD (Kar et al. 2007). In another study, the prevalences of PTSD, major depressive disorder, and generalized anxiety disorder around 1 year after the super-cyclone were 26.9%, 17.6%, and 12.0%, respectively. Proportion of adolescents with any diagnosis was 37.9%; and comorbidity was found in 39.0% of adolescents (Kar and Bastia 2006).

Hurricane Katrina in the United States provided another important context to understand the prevalence of disasters. The estimated prevalence of serious emotional disturbance (SED) 18–27 months after the Hurricane Katrina was 14.9%, and in 9.3% it was directly attributable to the storm (McLaughlin et al. 2009). Three and a half years after the Marmara earthquake in Turkey, 1.8% had very severe, 20.4% had severe, 38.3% had moderate, and 30.2% had mild symptoms of PTSD; 22.2% had probable PTSD and 30.8% had probable depression diagnoses. The mean grades of anxiety measures were higher than that of the normal population (Karakaya et al. 2004).

Social Issues

There are cultural differences regarding the perception of stress, resilience, and coping (Kar 2009b). The societal responses to disasters in various parts of the world vary considerably. It is commonly seen that following disasters, social conduct and behavior become a concern starting from immediate post-disaster period and continuing long after. There have been reports

of inconsideration for the need of others, looting, violence, and destructive behaviors (Kar 2006). It has been reported that the prevalence of substance abuse rises in community in the post-disaster period. In a study, the extent of trauma exposure was associated with greater binge drinking among adolescents (Schroeder and Polusny 2004).

It has been observed that a disaster situation is a uniquely vulnerable time for female adolescents, especially in developing countries. For example, a report from Bangladesh suggested that exposure to the unfamiliar environment of flood shelters and relief camps, and inability to maintain their "space" and privacy from male strangers, a number of the adolescent girls were vulnerable to sexual and mental harassment. With the floods, it became difficult for most of the girls to be appropriately "secluded" (Rashid and Michaud 2000).

Physical Problems

Adolescents with chronic physical conditions are at increased risk of adverse outcomes following a natural disaster. Providers may be able to reduce negative effects on this population by developing condition-specific preparedness care mechanisms. In a study following Hurricane Katrina, participants with preexisting conditions (39.4% of the total sample) were more likely than those without to be at the clinic for a non-chronic health condition rather than another problem (43.5% vs. 16.2%), to take asthma medication (37.4% vs. 3.9%), to have asthma worsen (16.3% vs. 1.9%), to miss a visit (49.2% vs. 39.8%), to run out of medications (33.9% vs. 7.9%), to live with flood damage (19.7% vs. 11.3%) or mold (23.6% vs. 15.8%), and to experience disruption in care (58.4% vs. 38.3%) or negative psychological consequences (ranging from 2.5% to 12.9%) (Rath et al. 2007).

Risk and Protective Factors

Many risk and protecting factors have been identified, which contribute to the state of mental health of adolescents following natural disasters. Some of the factors that have been studied more frequently include the degree of exposure, death of family members, economic status, preexisting physical or psychiatric morbidity, available support, relocation, prior trauma history, and resilience. Although research continues to emerge in this area, existing research is illustrative.

The degree of exposure as a potential risk factor has been identified in many studies. In a study following a super-cyclone, significantly more (43.7%) children in high exposure areas had PTSD than that (11.2%) in low exposure areas. It indicated that high exposure, lower educational level, and middle socioeconomic status significantly predicted the outcome of PTSD. Extreme fear and perceived threat to life during the disaster, death in family, damage to home, or staying in shelters were not significantly associated with PTSD (Kar et al. 2007). In another study, as exposure increased, adolescents reported increased symptoms of psychological distress; i.e., anger, depression, anxiety, and global mental distress. Females and white students experienced higher levels of distress. In most cases, other stressful life events were at least as strong a predictor of psychological distress as was exposure to the hurricane (Hardin et al. 1994). After Hurricane Mitch, severity of posttraumatic stress and depressive reactions and features of objective hurricane-related experiences among adolescents followed a "dose-of-exposure" pattern that was congruent with the rates of death and destruction across cities. Level of impact, objective and subjective features, and thoughts of revenge accounted for 68% of the variance in severity of posttraumatic stress reaction. Severity of posttraumatic stress reaction, death of a family member, and sex accounted for 59% of the variance in severity of depression (Goenjian et al. 2001). After a wildfire disaster, younger children and individuals with greater exposure to and perception of threat experienced higher levels of PTSD and general psychopathology. Female students reported a greater perception of threat but did not report higher levels of PTSD or other symptoms (McDermott et al. 2005).

The extent of traumatic exposure, parental support, family conflict, and overprotectiveness, all predicted levels of PTSD symptoms after a natural disaster. Furthermore, parental overprotectiveness moderated the effect of trauma, thus augmenting the impact of stress experienced during the disaster on the level of PTSD symptoms. The findings suggest that excessive parental control and infantilization of children for a long time after a disaster are harmful for adolescents' health and could be an obstacle in the recovery process. The results highlight the importance of studying parental ways of coping in order to predict how adolescents cope with a traumatic event (Bokszczanin 2008).

Following Hurricane Katrina, stress exposure was associated strongly with serious emotional disturbance (SED), and 20.3% of the youths with high stress exposure had hurricane-attributable SED. Death of a loved one had the strongest association with SED among prehurricane residents of New Orleans, whereas exposure to physical adversity had the strongest association in the remainder of the sample. Among children with stress exposure, parental psychopathology and poverty were associated with SED. In summary, the youths who were exposed to hurricane-related stressors, had a family history of psychopathology, and had lower family incomes were at greatest risk for long-term psychiatric impairment (McLaughlin et al. 2009). In another study, experiences associated with Hurricane Katrina including personal loss, separation from family and/or community, and lack of community support as well as previous loss or trauma were related to increased symptomatology in both children and adolescents (Osofsky et al. 2009). It was found that following a super-cyclone, adolescents from middle socioeconomic status were more affected. Prolonged periods of helplessness and lack of adequate post-disaster psychological support were perceived as probable influencing factors, as well as the severity of the disaster (Kar and Bastia 2006). Loss of both parents and, to a lesser degree, loss of a father was a significant risk factor for depression, but not for PTSD following Spitak earthquake. This study extends prior findings documenting post-disaster chronicity of depression and PTSD among bereaved adolescents, and underscores the need for post-disaster mental health and social programs, especially for those who suffer the loss of both parents (Goenjian et al. 2009).

Depression, subjective and objective earthquake-related experiences, and difficulties at home accounted for 41% of the variance in severity of PTSD reactions in children and adolescents after the 1999 earthquake in Ano Liosia, Greece. PTSD score was the single most powerful variable predicting depression (36% of the variance), with only sex making a small but significant additional contribution (Roussos et al. 2005). Adolescents who are exposed to severe trauma but remain untreated are at risk for chronic PTSD and depressive symptoms (Goenjian et al. 2005).

In a study related to substance use following disaster, greater age, prior drinking involvement, and the extent of prior trauma history were significantly associated with higher levels of binge drinking in adolescents. Prior trauma history and current levels of disaster-related PTSD symptomatology were significant risk factors for adolescents' report of increases in their alcohol consumption since the tornado (Schroeder and Polusny 2004).

Relocation is considered as an alternative after catastrophic natural disasters in situations where resources are so limited that rebuilding cannot take place for an indefinite period of time. The major study in this area found that children who were relocated after an earthquake did no worse than children who remained in the disaster zone (Najarian et al. 1996). The study certainly raises important issues that should be explored further.

Post-disaster studies report of adolescents who show resilience to the trauma of disasters (Vijayakumar et al. 2006). Factors contributing to resilience in the face of catastrophic stress are meaningful topics for further research. In tsunami-exposed adolescents and mothers from two villages in southern Sri Lanka, positive mother–child relationships provided a compensatory influence on both depressive and PTSD symptoms of adolescents. In contrast, high levels of depressive symptoms among mothers increased the detrimental influence of other tsunami-related psychosocial losses on adolescent mental health (Wickrama and Kaspar 2007). In an interesting observation, adolescents who had experienced a natural disaster estimated their chance of experiencing a negative outcome resulting from that event as less likely than individuals without such experience. These findings challenge the notion that risk judgments motivate behavior and instead suggest that risk judgments may be reflective of behavioral experiences (Halpern-Felsher et al. 2001).

Interventions

Approaches for Psychological Support

There are important implications for the provision of mental health and medical services to adolescents who have experienced traumatic stress (Fairbank and Fairbank 2009). There is need for both short-and long-term psychological support (Osofsky et al. 2009). The interventions should be phase specific, e.g., pre-disaster, disaster, early, recent, and remote post-disaster; as the needs and presentations vary across these periods (Kar 2006; Kar and Misra 2008; Kar 2009a).

Post-disaster mental health support should be community oriented (Kar and Misra 2008) within a comprehensive disaster recovery program (Goenjian et al. 2001). The public mental health approach should be adopted and it should define the levels of organization, methods of screening and triage, training and supervision of mental health staff, design and implementation of treatment approaches, and longitudinal monitoring of course of recovery and intervention outcome (Goenjian et al. 2001; Pynoos et al. 1998). A two-stage approach toward dealing with trauma-exposed adolescents has been suggested, namely, starting with a universal intervention followed by targeted specialized interventions for those still suffering from posttraumatic distress (Berger and Gelkopf 2009).

Types of Therapy

Post-disaster psychiatric sequels are a conglomeration of various syndromal diagnoses or subclinical symptom complexes involving mood, anxiety, sleep, conduct, learning, and attention problems, including physical injuries along with a changed social milieu, most of which have long-term impact. "Emotional First Aid" techniques have been used to deal with PTSD in disaster situations (Kar and Misra 2008; Pynoos and Nader 1988). The therapeutic tools included clarification of facts about the trauma, normalizing children's PTSD reactions, encouragement of expression of feelings, and teaching problem-solving techniques. For the injured adolescent, the best approach requires injury and pain assessment followed by specific interventions, such as pain management, brief consultation, and crisis intervention immediately after the specific traumatic event (Caffo and Belaise 2003).

In terms of providing treatment, cognitive-behavioral therapy (CBT) emerges as the best validated therapeutic approach for children and adolescents who experienced trauma-related symptoms, particularly symptoms associated with anxiety or mood disorders (Caffo and Belaise 2003). CBT interventions are considered by many to be the mainstay of treatment of children and adolescents with PTSD (Silva et al. 2003; Donnelly and Amaya-Jackson 2002).

Effectiveness of CBT among adolescents exposed to the 2004 earthquake in Bam, Iran was assessed in a comparative study. The severity of posttraumatic stress symptoms significantly decreased among the subjects given CBT in the case group. The improvement in posttraumatic stress symptoms was attributable to improvement in each of three-symptom categories (intrusion, avoidance, and arousal) and in the total score of posttraumatic stress disorder (Shooshtary et al. 2008). Short-term group CBT has also been found as a useful treatment approach. Significant improvement was reported in children at an 18-month follow-up, treatment gains being maintained at 4-year follow-up (Giannopoulou et al. 2006).

Interventions in groups have been found to be effective to promote catharsis, support, and a sense of identification with the group. Special groups to include children should be considered (Austin and Godleski 1999) in post-disaster periods. Brief trauma/grief-focused psychotherapy is effective in reducing PTSD symptoms and halting the progression of depression. Efficacy of a school-based short-term group and individual trauma/grief-focused therapy in adolescents exposed to disaster has been reported (Goenjian et al. 1997). It has been found that untreated adolescents worsened gradually. In a study comparing 12-session structured program "ERASE Stress Sri Lanka" (ES-SL) with a waiting list (WL), religious class control reported a significant reduction on all outcome variables. PTSD severity, functional problems, somatic complaints, depression, and hope scores were all significantly improved in the ES-SL group compared to the WL group. No new cases of PTSD were observed in the experimental group (Berger and Gelkopf 2009). These study findings support the implementation of mental health intervention programs in schools after disasters to reduce trauma-related psychopathology (Goenjian et al. 2005).

Adolescents' appraisal of stress and crisis is a critical issue to consider when intervening with adolescents who are exposed to disasters (Grant et al. 1997). In the face of declining community networks, they should be supported through programs that maintain resilience in the face of recurring environmental stressors (Dean and Stain 2007). An integrated approach using psychosocial and institutionalized (when needed) interventions can provide better outcomes than either approach alone (Somasundaram and van de Put 2006).

In the aftermath of a catastrophic natural disaster, adolescents assume greater responsibilities and confront a multitude of morally challenging interpersonal situations, which may result in an advancement of their moral development. Yet, at the same time, PTSD

symptoms and negative schematizations of self and others may give rise to disturbances in conscience functioning. It is suggested that therapeutic consideration should be given to assisting children in integrating the horror of their traumatic experiences and the harshness of posttrauma adversities into an adaptive schema of good and evil in themselves and the world (Goenjian et al. 1999).

Pharmacological Interventions

Literature regarding medicinal treatment of post-disaster psychiatric disorders in adolescents is still scant (Donnelly and Amaya-Jackson 2002). Various medications like the selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants, clonidine, propranolol non-SSRI antidepressants, mood stabilizers, anticonvulsants, and anti-adrenergic agents have been used in individual cases or a small series of cases and have shown efficacy for some trauma symptoms (Putnam and Hulsmann 2002). As a general principle, broad-spectrum agents, such as the SSRI, are a good first choice (Donnelly 2003; Cohen et al. 2001). It is known that PTSD is often treated with medications in the community (Silva et al. 2003; Donnelly and Amaya-Jackson 2002). The SSRIs have efficacy in treating the core symptoms of PTSD and conditions such as the anxiety disorders and depression that commonly co-occur with PTSD. Adrenergic agents, such as clonidine, used either alone or in combination with an SSRI may be useful when symptoms of hyperarousal and impulsivity are problematic (Donnelly 2003; Cohen et al. 2001). Supplementing with a mood stabilizer may be necessary in severe affective dyscontrol. Similarly, introduction of an atypical antipsychotic agent may be necessary in cases of severe self-injurious behavior, dissociation, psychosis, or aggression (Donnelly 2003).

Reduction in even one debilitating symptom of PTSD can improve overall functioning across multiple domains (Donnelly and Amaya-Jackson 2002). Positive responders should be maintained on medication for at least 6 months after remission of acute PTSD and at least 12 months after remission of chronic PTSD (Putnam and Hulsmann 2002). Pharmacotherapy is typically used as one component of a more comprehensive multi-modality treatment package, including psychoeducation of the parents and the adolescent, specific psychotherapy involving cognitive-behavioral, trauma/grief-focused, psychodynamic with adjunctive family therapy when indicated and long-term booster interventions (Kar 2009a).

Family Intervention

The trauma experienced by an individual victimized by a natural disaster reverberates through an entire family. Most of the time, the entire family suffers from the trauma of the disaster. Family support is necessary to help the family through this difficult period. This should be based in the established clinical practice. It may be highlighted that the intervention with survivors of disasters is a different process from other treatments (Wells 2006). As conclusions from the research on resilience suggest, the extraordinary resilience and recovery power of children and adolescents depend on basic human protective systems operating in their favor (Caffo and Belaise 2003). This observation suggests that supporting the surrounding family becomes all the more important while dealing with young victims.

Conclusion

Considering the ubiquitous nature of the disasters and their catastrophic impact on vulnerable adolescents, the studies in this area are still sparse. Current evidence reveals that posttraumatic stress disorder, depression, anxiety disorders, sleep problems, and substance abuse are observed in adolescents following natural disasters. The negative effects can continue long term even after many years of the disasters. Emotional first aid, cognitive behavior therapy, and group therapies have been tried with positive results. The evidence of effectiveness of medications is growing. There is a need for more studies on the prevalence of various post-disaster psychiatric manifestations in adolescents and the effectiveness of various interventions that are provided across cultures following different types of disasters.

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References

Austin, L. S., & Godleski, L. S. (1999). Therapeutic approaches for survivors of disaster. *The Psychiatric Clinics of North America, 22*(4), 897–910.

Berger, R., & Gelkopf, M. (2009). School-based intervention for the treatment of tsunami-related distress in children: A quasi-randomized controlled trial. *Psychotherapy and Psychosomatics, 78*(6), 364–371.

Bokszczanin, A. (2008). Parental support, family conflict, and overprotectiveness: Predicting PTSD symptom levels of adolescents 28 months after a natural disaster. *Anxiety, Stress, and Coping, 21*(4), 325–335.

Caffo, E., & Belaise, C. (2003). Psychological aspects of traumatic injury in children and adolescents. *Child and Adolescent Psychiatric Clinics of North America, 12*(3), 493–535.

Cohen, J. A., Mannarino, A. P., & Rogal, S. (2001). Treatment practices for childhood posttraumatic stress disorder. *Child Abuse & Neglect, 25*(1), 123–135.

Dean, J., & Stain, H. J. (2007). The impact of drought on the emotional well-being of children and adolescents in rural and remote New South Wales. *The Journal of Rural Health, 23*(4), 356–364.

Donnelly, C. L. (2003). Pharmacologic treatment approaches for children and adolescents with posttraumatic stress disorder. *Child and Adolescent Psychiatric Clinics of North America, 12*(2), 251–269.

Donnelly, C. L., & Amaya-Jackson, L. (2002). Post-traumatic stress disorder in children and adolescents: Epidemiology, diagnosis and treatment options. *Paediatric Drugs, 4*(3), 159–170.

Fairbank, J. A., & Fairbank, D. W. (2009). Epidemiology of child traumatic stress. *Current Psychiatry Reports, 11*(4), 289–295.

Giannopoulou, I., Dikaiakou, A., & Yule, W. (2006). Cognitive-behavioural group intervention for PTSD symptoms in children following the Athens 1999 earthquake: A pilot study. *Clinical Child Psychology and Psychiatry, 11*(4), 543–553.

Goenjian, A. K., Karayan, I., Pynoos, R. S., Minassian, D., Najarian, L. M., Steinberg, A. M., et al. (1997). Outcome of psychotherapy among early adolescents after trauma. *The American Journal of Psychiatry, 154*(4), 536–542.

Goenjian, A., Stilwell, B. M., Steinberg, A. M., Fairbanks, L. A., Galvin, M. R., Karayan, I., et al. (1999). Moral development and psychopathological interference in conscience functioning among adolescents after trauma. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*(4), 376–384.

Goenjian, A. K., Molina, L., Steinberg, A. M., Fairbanks, L. A., Alvarez, M. L., Goenjian, H. A., et al. (2001). Posttraumatic stress and depressive reactions among Nicaraguan adolescents after hurricane Mitch. *The American Journal of Psychiatry, 158*(5), 788–794.

Goenjian, A. K., Walling, D., Steinberg, A. M., Karayan, I., Najarian, L. M., & Pynoos, R. (2005). A prospective study of posttraumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. *The American Journal of Psychiatry, 162*(12), 2302–2308.

Goenjian, A. K., Walling, D., Steinberg, A. M., Roussos, A., Goenjian, H. A., & Pynoos, R. S. (2009). Depression and PTSD symptoms among bereaved adolescents 6(1/2) years after the 1988 Spitak earthquake. *Journal of Affective Disorders, 112*(1-3), 81–84.

Grant, S. M., Hardin, S. B., Pesut, D. J., & Hardin, T. (1997). Psychological evaluations, referrals, and follow-up of adolescents after their exposure to Hurricane Hugo. *Journal of Child and Adolescent Psychiatric Nursing, 10*(1), 7–16.

Halpern-Felsher, B. L., Millstein, S. G., Ellen, J. M., Adler, N. E., Tschann, J. M., & Biehl, M. (2001). The role of behavioral experience in judging risks. *Health Psychology, 20*(2), 120–126.

Hardin, S. B., Weinrich, M., Weinrich, S., Hardin, T. L., & Garrison, C. (1994). Psychological distress of adolescents exposed to Hurricane Hugo. *Journal of Traumatic Stress, 7*(3), 427–440.

Kar, N. (2006). Psychosocial issues following a natural disaster in a developing country: A qualitative longitudinal observational study. *International Journal of Disaster Medicine, 4*, 169–176.

Kar, N. (2009a). Psychological impact of disasters on children: Review of assessment and interventions. *World Journal of Paediatrics, 5*(1), 5–11.

Kar, N. (2009b). Natural disasters in developing countries: Mental health issues. *Indian Journal of Medical Sciences, 63*(8), 327–329.

Kar, N., & Bastia, B. K. (2006). Post-traumatic stress disorder, depression and generalised anxiety disorder in adolescents after a natural disaster: A study of comorbidity. *Clinical Practice Epidemiology in Mental Health, 26*(2), 17.

Kar, N., & Misra, B. N. (2008). *Mental health care following disasters.* Bhubaneswar: Quality of Life Research and Development Foundation.

Kar, N., Mohapatra, P. K., Nayak, K. C., Pattanaik, P., Swain, S. P., & Kar, H. C. (2007). Post-traumatic stress disorder in children and adolescents one year after a super-cyclone in Orissa, India: Exploring cross-cultural validity and vulnerability factors. *BMC Psychiatry, 14*(7), 8.

Kar, N., Thirthalli, J., Murali, N. (2001). Post-traumatic stress disorder in children following disaster. *Kerala Journal of Psychiatry, 16*(2), 7–14.

Kar, N., Thirthalli, J., Sharma, P. S. V. N., Murali, N., & Mehrotra, S. (2004). Mental health consequences of the Trauma of supercyclone 1999 in Orissa. *Indian Journal of Psychiatry, 46*, 228–237.

Karakaya, I., Ağaoğlu, B., Coşkun, A., Sişmanlar, S. G., & Yildiz Oc, O. (2004). The symptoms of PTSD, depression and anxiety in adolescent students three and a half years after the Marmara earthquake. *Türk Psikiyatri Dergisi, 15*(4), 257–263.

Marsee, M. A. (2008). Reactive aggression and posttraumatic stress in adolescents affected by Hurricane Katrina. *Journal of Clinical Child and Adolescent Psychology, 37*(3), 519–529.

McDermott, B. M., Lee, E. M., Judd, M., & Gibbon, P. (2005). Posttraumatic stress disorder and general psychopathology in children and adolescents following a wildfire disaster. *Canadian Journal of Psychiatry, 50*(3), 137–143.

McFarlane, A. C., & Van Hooff, M. (2009). Impact of childhood exposure to a natural disaster on adult mental health: 20-year longitudinal follow-up study. *The British Journal of Psychiatry, 195*(2), 142–148.

McLaughlin, K. A., Fairbank, J. A., Gruber, M. J., Jones, R. T., Lakoma, M. D., Pfefferbaum, B., et al. (2009). Serious emotional disturbance among youths exposed to Hurricane Katrina 2 years postdisaster. *Journal of the American Academy of Child and Adolescent Psychiatry, 48*(11), 1069–1078.

Najarian, L. M., Goenjian, A. K., Pelcovitz, D., Mandel, F., & Najarian, B. (1996). Relocation after a disaster: Posttraumatic stress disorder in Armenia after the earthquake. *Journal of the*

American Academy of Child and Adolescent Psychiatry, 35(3), 374–383.

Osofsky, H. J., Osofsky, J. D., Kronenberg, M., Brennan, A., & Hansel, T. C. (2009). Posttraumatic stress symptoms in children after Hurricane Katrina: Predicting the need for mental health services. *The American Journal of Orthopsychiatry, 79*(2), 212–220.

Piyasil, V., Ketumarn, P., Prubrukarn, R., Pacharakaew, S., Dumrongphol, H., Rungsri, S., et al. (2008). Psychiatric disorders in children at one year after the tsunami disaster in Thailand. *Journal of the Medical Association of Thailand, 91* (Suppl 3), S15–S20.

Piyavhatkul, N., Pairojkul, S., & Suphakunpinyo, C. (2008). Psychiatric disorders in tsunami-affected children in Ranong province, Thailand. *Medical Principles and Practice, 17*(4), 290–295.

Putnam, F. W., & Hulsmann, J. E. (2002). Pharmacotherapy for survivors of childhood trauma. *Seminars in Clinical Neuropsychiatry, 7*(2), 129–136.

Pynoos, R. S., & Nader, K. (1988). Psychological first aid and treatment approach to children exposed to community violence: Research implications. *Journal of Traumatic Stress, 1* (4), 445–473.

Pynoos, R. S., Goenjian, A. K., & Steinberg, A. M. (1998). A public mental health approach to the postdisaster treatment of children and adolescents. *Child and Adolescent Psychiatric Clinics of North America, 7*(1), 195–210.

Rashid, S. F., & Michaud, S. (2000). Female adolescents and their sexuality: Notions of honour, shame, purity and pollution during the floods. *Disasters, 24*(1), 54–70.

Rath, B., Donato, J., Duggan, A., Perrin, K., Bronfin, D. R., Ratard, R., et al. (2007). Adverse health outcomes after Hurricane Katrina among children and adolescents with chronic conditions. *Journal of Health Care for the Poor and Underserved, 18*(2), 405–417.

Roussos, A., Goenjian, A. K., Steinberg, A. M., Sotiropoulou, C., Kakaki, M., Kabakos, C., et al. (2005). Posttraumatic stress and depressive reactions among children and adolescents after the 1999 earthquake in Ano Liosia, Greece. *The American Journal of Psychiatry, 162*(3), 530–537.

Schroeder, J. M., & Polusny, M. A. (2004). Risk factors for adolescent alcohol use following a natural disaster. *Prehospital and Disaster Medicine, 19*(1), 122–127.

Shioyama, A., Uemoto, M., Shinfuku, N., Ide, H., Seki, W., Mori, S., et al. (2000). The mental health of school children after the Great Hanshin-Awaji Earthquake: II. Longitudinal analysis. *Seishin Shinkeigaku Zasshi, 102*(5), 481–497.

Shooshtary, M. H., Panaghi, L., & Moghadam, J. A. (2008). Outcome of cognitive behavioral therapy in adolescents after natural disaster. *The Journal of Adolescent Health, 42*(5), 466–472.

Silva, R. R., Cloitre, M., Davis, L., Levitt, J., Gomez, S., Ngai, I., et al. (2003). Early intervention with traumatized children. *The Psychiatric Quarterly, 74*(4), 333–347.

Somasundaram, D. J., & van de Put, W. A. (2006). Management of trauma in special populations after a disaster. *The Journal of Clinical Psychiatry, 67*(Suppl 2), 64–73.

Vijayakumar, L., Kannan, G. K., Ganesh Kumar, B., & Devarajan, P. (2006). Do all children need intervention after exposure to tsunami? *International Review of Psychiatry, 18*(6), 515–522.

Wagner, K. D., Brief, D. J., Vielhauer, M. J., Sussman, S., Keane, T. M., & Malow, R. (2009). The potential for PTSD, substance use, and HIV risk behavior among adolescents exposed to Hurricane Katrina. *Substance Use & Misuse, 44*(12), 1749–1767.

Wells, M. E. (2006). Psychotherapy for families in the aftermath of a disaster. *Journal of Clinical Psychology, 62*(8), 1017–1027.

Wickrama, K. A., & Kaspar, V. (2007). Family context of mental health risk in Tsunami-exposed adolescents: Findings from a pilot study in Sri Lanka. *Social Science & Medicine, 64*(3), 713–723.

Neighborhoods

Elizabeth K. Anthony[1], Nicole Nicotera[2]
[1]School of Social Work, Arizona State University, Phoenix, AZ, USA
[2]Graduate School of Social Work, University of Denver, Denver, CO, USA

Overview

The essay begins with an introduction to the concept of neighborhood to explain how neighborhood is defined and measured and to contextualize how adolescents develop within this proximal environment. It describes traditional and historical methods for studying child and adolescent development within neighborhood contexts. Conceptual and methodological contributions and limitations of this research are explored. The essay subsequently reviews trends in studying neighborhood and the contributions and limitations of newer studies. Finally, the essay summarizes what is known about the role of neighborhoods in adolescent development along with what is needed to move the field forward.

The Role of Neighborhoods in Adolescent Development

Neighborhoods play an important role in the lives of adolescents; however, it is a role that researchers and practitioners are just beginning to untangle. As a context for child and adolescent development, neighborhoods are less studied and more poorly understood than the other ecological systems such as families and schools. Relative to these other contexts, the neighborhood is considered a distal environment. For example, parental and sibling relationships within a family as

well as peer and teacher influences within a school environment exert considerable influence on child and adolescent development. Relative to other macro environmental contexts such as community and society, however, neighborhoods are proximal. Norms within a neighborhood and resources that are immediately available to neighborhood residents can have a direct influence on adolescents and also on parental stress and support, in turn impacting adolescent development (Furstenberg et al. 1999; Wilson 1995). Research suggests that neighborhoods are an important developmental context for adolescents given the proximal nature of interaction, particularly for older youth (Brooks-Gunn et al. 1997; Furstenberg and Hughes 1997; Leventhal and Brooks-Gunn 2000). Historically, studies have focused on problems associated with neighborhoods; however, more recent research explores the assets of neighborhoods in an effort to understand how both assets and deficits contribute to child and adolescent development.

The Concept of Neighborhood

Neighborhood is a commonly used term, such as when someone indicates that another person lives in her/his neighborhood. Similarly, the use of "good neighborhood" and "bad neighborhood" in everyday language signals judgment about the quality of neighborhoods based on certain characteristics. These characteristics may not be commonly agreed upon such as when one person's love for urban living is another person's disdain. In addition, neighborhood research has historically focused on poor, urban areas of major cities, also painting a particular picture of what is meant by neighborhood influences.

In practice, definitions of this proximal context vary. Is a neighborhood your block or your street or the apartment building in which you live; several blocks around your house or apartment; or the entire region you navigate to shop for groceries, go to school, or do business? Are your neighbors the people who live in the house or apartment right next to you or are they the individuals you encounter as you move throughout your day? In general, children define neighborhood as the proximal environment they traverse on a daily basis (Anthony and Nicotera 2008; Bryant 1985; Burton et al. 1997). This definition varies by age. For example, younger children are limited in the amount of geographic space they access, whereas older adolescents often interact with a broader geographic space due to their mobility and peer associations.

Chaskin (1995) defines neighborhood as a "geographically bound unit in which the residents share proximity and the circumstances within that proximity" (p. 1). Neighborhood can be defined as "environment" or "place" with different associations for each. Neighborhood as environment has been defined by Kemp (2001) as a somewhat static context representing a generally universal experience. Representations of neighborhood as environment such as census and other administrative data are described in more detail in subsequent sections of this essay. Structural characteristics such as rates of poverty or unemployment are examples of neighborhood as environment. "Place" on the other hand represents the lived experience of individuals within a neighborhood (Childress 1994; Kemp 2001). Place represents the subjective experience obtained only through an insider's perspective on daily life within an environment (Kemp 2001). Neighborhood as place has been investigated in qualitative studies such as ethnographies and quantitative surveys of the subjective experience of neighborhood structural features.

Several scholars offer helpful conceptualizations of neighborhood that capture its multidimensional complexity. For example, Wachs (1999) suggests "the environment is more than the objective environment; there is a parallel environment that is the individual's subjective experience or perception of his or her objective environment" (p. 365). Similarly, Meegan and Mitchell (2001) describe neighborhood as a "key living space through which people get access to material and social resources, across which they pass to reach other opportunities and which symbolizes aspects of the identity of those living there, to themselves and to outsiders" (p. 2172).

Brooks-Gunn et al. (1997) define neighborhoods as "the immediate social contexts in which individuals and families engage with the institutions and social agents that regulate and control access to community opportunity structures and resources" (p. 9). Neighborhoods represent spatial units, associational networks, and perceived environments. When attempting to measure neighborhood from this perspective, "the strongest linkages between neighborhoods and individual outcomes include not only measures of the objective characteristics of neighborhoods, but also

the characterizations of the perceived neighborhood; its norms, opportunities, barriers, dangers, models, controls, pressures, and supports as seen by the residents" (Brooks-Gunn et al. 1997, p. 10). This view is congruent with the perspective of neighborhood as environment and constructed as place. Given the developmental goals and exploration associated with adolescence, these parallel environments have meaning for the everyday experience of self in relation to others. Researchers are just beginning to understand the reciprocal relationships between individuals and neighborhood influences and between the various ecological systems of family and peer relationships and neighborhoods as they pertain to adolescent development.

How Neighborhoods Influence Development

A number of theories, emerging primarily from the fields of psychology and sociology, are influential in understanding the role of neighborhoods in adolescent development. Neighborhood processes and environments are complicated and explaining the relationship between such complex processes and adolescent development requires multiple theoretical perspectives. Several theoretical perspectives that are particularly relevant for understanding adolescent contextual development are reviewed below.

Urie Bronfenbrenner's ecological theory of human development (1979; 1986; 1989) has significant implications for the role of neighborhoods in adolescent development as it specifically addresses the influence of social context on behavior (Anthony 2006). Ecological theory has been applied more recently to the conceptualization of risk and resilience in a number of adolescent problem areas (Fraser 2004).

At the core of Bronfenbrenner's theory is the interaction between the individual and multiple levels of social influence, with an emphasis on dynamics between and across subsystems. The ecological framework consists of four subsystems, "conceived topologically as a nested arrangement of structures, each contained within the next" (Bronfenbrenner 1977, p. 514). The microsystem consists of the particular roles one plays, such as mother, daughter, worker, etc., and the daily interactions one encounters. The mesosystem involves interaction between the multiple settings an individual encounters or the links between various microsystems. For example, interactions of a child with family members, the school environment, and an after-school program describe the mesosystem. The exosystem includes social or institutional structures that do not involve the individual but exert influence, such as the media or governmental agencies. Lastly, macrosystems are cultural contexts consisting of social structures and expectations, such as laws about drug or alcohol use, which impact the individual.

Bronfenbrenner (1979) offers a broad approach to child and adolescent development, arguing that individual development occurs within, and is influenced by, the multilevel context in which a young person lives. For example, an ecological approach views resilience as supportive systems that interact to produce adaptive outcomes in the face of risk and protection. Examples include coping in the presence of a stressful environment and positively influencing negative aspects of one's environment. Resilience was historically defined by unidirectional models in which risk had a certain trajectory. For example, a number of risk factors for substance abuse in a young person's life would result in a high likelihood that a young person would engage in substance abuse. Yet, as ecological theory depicts, the dynamics on multiple levels interact to not only interrupt a chain of risk events, but also to alter the nature of risk.

The concept of reciprocity, in which the individual is not only influenced by the environment but also *exerts influence* on the environment, helps to explain interaction on multiple levels. Bronfenbrenner (1977) describes research in which mothers allowed to hold their babies immediately after delivery and for consistent periods of time in subsequent days were more concerned about the infant's welfare, more attentive, and more affectionate than mothers in the control group. While the goal was to support the infants' development, the mothers were simultaneously affected in this process. Similarly, Watkins' (2001) qualitative study of a group of girls from high-risk environments revealed positive strategies that emerged in the girls as they resisted negative relational encounters, thus changing the nature of the encounter and the relationship.

Fraser (2004) adapts the systems described by Bronfenbrenner to the study of risk and resilience in children and adolescents by replacing microsystems, mesosytems, macrosystems, and exosystems with a multisystems perspective incorporating the domains of individual psychosocial and biological characteristics, family factors, and the environment including

school and neighborhood. In this way, the risk and resilience model can be used with an ecological perspective to understand multiple layers of risk and protection as well as the interactions between these factors. Describing the patterns in this system as arising from "reciprocated causation," Fraser describes behaviors as a function of dynamic interactions as described by Bronfenbrenner's original model (Fraser 2004, p. 6).

Another important perspective emerging from Bronfenbrenner's ecological theory stems from the omission of cross-cultural research in studies of child development. Rejecting the application of developmental theory based on white, middle-class children, Ogbu (1981) argues for a cultural-ecological perspective on human competence. Addressing the culturally bound definitions of competence or resilience, a cultural-ecological perspective recognizes, for example, that environments are cultural and multilayered. What constitutes developmental competence in one cultural environment is often radically different from competence in another cultural environment (such as major differences between poor, urban environments, and the culture upon which "normative" developmental research is conducted) (Tietjen 1989). Researchers who apply a universal model of human development ignore the implications of ecological theory.

In a similar vein, Garcia Coll and colleagues (1996) developed an integrative model that builds on Bronfenbrenner's emphasis on systems by attending to the role of racism, discrimination, oppression, prejudice, and segregation in the development of minority children and their families. In the integrative model, environments that inhibit development have limited access to resources; adaptive cultures are "the product of a minority group's prior collective history (i.e., cultural, political, and economic) and the contextual demands placed by promoting and inhibiting environments" (Garcia Coll et al. 1996, p. 1905). An example of an environment that promotes development in this model would be extended family and positive relational networks within the African American community to protect against the effects of racism (McAdoo 1995).

Perhaps the greatest contribution of Bronfenbrenner's ecological theory to the study of adolescent development is the heightened awareness of developmental contextualism or transactional models of development, which acknowledge the reality of different environments (Sameroff 1983). The variance in outcomes seen in children from high-risk environments can be partially attributed to the complexity of the social systems in which they live. An ecological perspective helps to explain why a child living in chronic poverty may respond to a specific stressor differently than a child with economic resources, as well as why different protective factors may be needed to buffer this child from the stressor (Booth and Crouter 2001; Fraser and Terzian 2005; Furstenberg et al. 1999).

Characteristics of Neighborhoods

Bronfenbrenner's (1979) ecology theory of human development, especially his delineation of the qualities and characteristics of the mesosystem and exosystem that are required for optimal human development, plays a key role in explaining the importance of context in the process of child and adolescent development. Bronfenbrenner's (1979) model suggests that in order to understand child and adolescent development, one must consider a range of effects, from the micro level of interpersonal relationships to the exosystem and macrosystem level of relationships that do not directly involve the young person, but that set up the blueprint of social rules, such as racial discrimination, that impact the development of the youth.

Within this framework, "neighborhood" can be conceived of "as a complex conglomeration that comprises four categories: social composition, economic composition, social processes, and physical composition/resources" (Nicotera 2007, p. 30). Examples of each of the variables associated with these categories are listed in Table 1. This table reflects variables informed by sociological theory (such as sociocultural perspectives), and psychological theory (such as biosocial and psychosocial perspectives) that several scholars have linked to adolescent outcomes. Each of these variables, as part of a neighborhood context, has the potential for impacting social and behavioral developmental outcomes. Accurate measures of neighborhood are one of the necessary precursors to obtaining conclusive results from neighborhood effects research. It is important to note that studies have historically focused on deficits and stressors of certain neighborhoods (typically low-income, urban neighborhoods); therefore, less is known about the characteristics of neighborhoods and neighborhood social processes that serve to support healthy adolescent development.

Neighborhoods. Table 1 Four categories of neighborhood contextual effects (Adapted from Nicotera 2003)

I. Social composition
Age
Race/ethnicity
Residential mobility
Density of children and adolescents
Percentage of elderly residents
Percentage of single parents
II. Economic composition
Percentage of affluent neighbors
Proximity to concentrated poverty
Poverty
Employment
Percentage white collar workers
Percentage managerial/professional workers
Education levels of residents
Public housing
Home ownership
III. Social processes
Organization
Unsupervised teens
Neighboring
Crime
Value consensus
Community monitoring
Social capital/social networks
Social cohesion
Collective socialization
Daily hassles
IV. Physical composition/resources
Condition of housing
Abandoned homes and vacant lots
Trash/litter and graffiti
Traffic and street conditions
Playgrounds/parks
Proximity to employment
Community centers
Schools and libraries
Bars
Medical/health facilities

Structural characteristics of neighborhoods such as poverty and mobility of residents have been identified as factors impacting the family system and, consequently, young people (Brooks-Gunn et al. 1997). Poverty is a broad and pervasive risk factor impacting access to quality health care and educational services and parental stress and availability, which in turn impacts developmental outcomes for children and adolescents. Externalizing behaviors, teenage pregnancy, involvement in the juvenile justice system, and school dropout are negative outcomes for adolescents that are associated with living in neighborhoods characterized by poverty (Clark 1992; Duncan et al. 1994; Sheidow et al. 2001). Proximity to concentrated poverty and impoverishment are factors in other risk circumstances such as child maltreatment and neglect (Coulton et al. 1995).

Other social and economic composition factors of neighborhoods related to risk for young people include high crime rates, the presence of drug abuse and drug dealing, exposure to gangs and gang-related activity, and physical characteristics of the neighborhood such as graffiti and presence of broken windows and damaged buildings. In addition to increasing the risk of involvement in antisocial activity, disorganized and chaotic neighborhoods with these risk factors can become socially toxic environments that "demoralize families and communities" (Garbarino 1995, pp. 4–5).

On the other hand, access to opportunities for employment and education within or near a neighborhood is an asset to families. Physical and socioemotional resources within a neighborhood are supportive of adolescent development either directly or through support to the parental unit. Exposure to adults with a diversity of professional jobs and education is linked to a young person's aspirations for the future and beliefs about what is possible (Wilson 1995). Opportunities for prosocial involvement and collaborative relationships encourage healthy development and engagement in meaningful activity (Fraser et al. 2004).

Several social processes serve to establish cultural norms within neighborhoods and can be supportive or problematic for adolescent development. Abada et al. (2007) linked greater perceived social cohesion, the social ties between individuals living in a neighborhood, to better health outcomes for youth across, race, ethnicity, and neighborhood type and lower rates of depression among adolescent females (Laser and Nicotera 2011). Neighborhoods that are socially organized and characterized by collective efficacy, defined as "social cohesion among neighbors combined with their willingness to intervene on behalf of the common good" (Sampson et al. 1997, p. 918), promote opportunities.

Norms and expectations for behavior are important social mechanisms through which young people shape their own behavior. Informed by the theories of William Julius Wilson (1987, 1995) regarding the manner in

which norms are developed within a neighborhood, collective socialization suggests that young people are influenced by adults in the neighborhood through modeling (Laser and Nicotera 2011). Just as norms such as expectations about finishing high school and taking care of family members can be positive and supportive, negative norms established in some neighborhoods can gain momentum and be challenging to shift. However, when families and adults within neighborhoods come together to supervise and provide guidance to neighborhood children, young people can ultimately benefit from the broader network of social support (Furstenberg et al. 1999). Novak et al. (2002) linked collective socialization theory to the examination of the impact of neighborhood normative processes about drug use to young people's beliefs about drug use. Even when controlling for preexisting beliefs and experiences of individual youth about drug use, norms in neighborhoods supporting the view that use of hard drugs is less risky resulted in young people's perceptions of hard drug use as less risky. At the same time, well-established positive networks within neighborhoods can help to minimize crime and other antisocial behavior among young people (Sampson et al. 1997; Shaw and McKay 1969).

Some social processes are particularly challenging for adolescents when navigating the neighborhood environment. Social organization (or disorganization) at the neighborhood level reflects the culmination of many of the social processes listed in Table 1. Several adolescent risk behaviors such as violent and antisocial behavior (Bowen et al. 2002; Law and Barber 2006; Vowell 2007) and mental health outcomes such as depression (Nebbitt and Lombe 2007) have been linked to socially disorganized neighborhoods. Daily hassles, the "irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment," can accumulate into a substantial risk for young people, particularly young people living in urban poverty (Kanner et al. 1981, p. 31). Results from an investigation of risk and resilience among urban youth suggest that young people living in poverty experience considerable "hassles" in the microsystem transactions of daily life, that in turn impact social and educational outcomes (Anthony 2008). Such experiences are often overlooked in clinical assessments of young people's health and well-being due to limited tools that focus exclusively on micro level influences (Nicotera 2005a).

Measuring Neighborhood

Given the conceptual hurdles encountered in defining neighborhood, maneuvering from the theoretical realm to operationalizing and measuring the concept presents considerable methodological challenges. While substantial strides have been made in operationalizing some aspects of neighborhood and measuring the objective and subjective features of neighborhoods, a great deal of work remains, particularly in the subjective realm.

Comprehending how neighborhood environments shape adolescent social and behavioral development requires measurement of the multiple levels that shape that environment, a seemingly insurmountable task. Each of the measures of neighborhood discussed in this essay represents different disciplines and each has strengths and weaknesses. None alone appears to be capable of capturing the complexity represented by neighborhood environments. Given this, it would make sense for multidisciplinary teams to collaborate on the task of operationalizing neighborhood context. An effort such as this may assist in the development of more conclusive findings about the ways in which neighborhoods shape or do not shape adolescent social and behavioral development (Nicotera 2007).

The multidimensional nature of the neighborhood context, including both objective and subjective features, is captured by a number of researchers (Bronfenbrenner 1979, 1989; Brooks-Gunn et al. 1997; Garner and Raudenbush 1991; Plotnick and Hoffman 1999; Wachs 1999). Plotnick and Hoffman (1999) describe the inherent challenges encountered when attempting to separate the exogenous features of a neighborhood from the characteristics of families who live in the neighborhood. The self-selection process involved in individuals and families moving to a neighborhood impacts the dynamics of a neighborhood in nuanced ways. Garner and Raudenbush (1991) emphasize the complexity of operationalizing neighborhood by noting, "Neighborhoods are not unidimensional, spatial units. They vary in their definition, depending on the type of problem to be studied and the supposed relationship between their characteristics and the phenomenon under study" (p. 252).

The variables employed in operational definitions of neighborhood must account for measuring neighborhood as both environment (objective) and place (subjective), which is complicated (Nicotera 2007). However, it is not often that measures of neighborhood incorporate both of these elements. Measures used to assess neighborhood contextual effects, such as census tract data, do not include adolescent perceptions and information about influential social processes. As a result, findings from studies using exclusively objective measures tend to conclude that the linkages between neighborhood characteristics and adolescent outcomes are weak (Gephart 1997).

The dearth of measures for neighborhood social processes does not diminish the importance of their inclusion as variables in neighborhood research. Tienda (1991) emphasizes the importance of measuring the social aspects of neighborhoods. She notes that employing census tracts and zip code areas as proxies for neighborhood results in representations of "statistical neighborhoods," which may result in measures that do not account for social interaction patterns. Tienda states that social interaction patterns are the ultimate mechanisms through which neighborhood effects can be transmitted. She points out, for example, that depending on the level of trust, people living in a large public housing project may or may not interact with one another. In the case where there is little to no interaction, "a so-called neighborhood characteristic, such as percentage on welfare or percentage of joblessness, would reveal very little about the social processes that produce the structural attributes of the place" (Tienda 1991, p. 248).

The inclusion of these subjective elements into measures of neighborhood is no simple task. Many researchers of human development have the tendency to avoid assessments of the subjective environment because of the various problems inherent in attempts to measure individuals' perceptions (Wachs 1999). Some of this difficulty stems from the challenge involved in distinguishing between subjective interpretations of the environment and individual personality characteristics that influence those interpretations.

However, sole use of more objective measures does not provide for the comprehensive measures required to uncover neighborhood effects on developmental outcomes. As Wachs (1999) notes there are issues with measuring the objective elements of neighborhood environments via statistical controls because the controls can mask exactly what the researcher is looking for, that is a measure of neighborhood social mechanisms that may or may not influence developmental outcomes. He cites Rutter and Pickles (1991) who note, "the choice of statistical techniques should reflect the nature of the phenomena under study. The use of statistical partialling techniques as a way of isolating the critical environmental influence is a procedure that would reflect the environment, if the structure of the environment involved a unidimensional-unilevel set of independent influences" (Wachs 1999, p. 363). Given the multidimensional nature of neighborhoods as environments and places, it is unlikely that such partialling techniques will provide conclusive results when it comes to understanding neighborhood effects.

There are several issues associated with both quantitative and qualitative measures of neighborhood environments in general. The goal of quantitative research is to "estimate an average effect of a particular variable across a large number of cases and seek to isolate its effect from confounding context and individual variables" (Talbert and McLaughlin 1999, p. 198). The shortcoming of this method is that it decontextualizes relationships. On the other hand, qualitative research has the goal of "conceptualizing context as the syndrome of conditions that describe a particular case. The significance of an environmental condition is judged in terms of its meanings and effects in a particular context" (Talbert and McLaughlin 1999, p. 198). This method is limited in the ability to generalize across contexts or examine contextual interaction effects. Herein lays the seemingly insurmountable challenge of operationalizing the construct *neighborhood*.

In light of these issues, the next section examines both quantitative and qualitative techniques for operationalizing the construct *neighborhood*. The various measures of neighborhood, however, do not always fit neatly into the broad categories of quantitative and qualitative methodology. For example, some authors collect qualitative data, such as drawings of, or writings about neighborhood, but then proceed to quantify these data as opposed to analyzing in a qualitative manner. In addition, these measures represent a broad range of disciplines. Within these disciplines, some researchers measure neighborhood with the goal of examining how

it affects various social and behavioral outcomes, while others create a measure of neighborhood as a means for exploring how neighborhood is utilized so as to inform urban planning (Nicotera 2007).

Quantitative Measures

Census Data, Zip Code Areas, Police and Housing Statistics, and Social Indicators

The majority of neighborhood research utilizes U.S. Census and other types of survey or administrative data that are typically publicly available and collected by governmental entities. For example, based on Sampson and colleagues' (1997) influential work defining economic and social resources, Sheidow et al. (2001) used a Census map identifying tracts in which families lived to measure the structural characteristics of a community in Chicago. The authors subsequently examined the relationship between these characteristics, family functioning, and risk for violence exposure.

Administrative sources typically provide data on levels of crime in individual neighborhoods; poverty, employment, and education level of residents; ratios of residential and commercial properties; and stability factors such as mobility. These administrative data sources include systematic information about a range of diverse neighborhoods for the purpose of comparing various structural and economic factors such as rates of employment per population and crime statistics. Such information is useful to inform potential residents of neighborhoods (such as for real estate purposes) and can be used to provide support for the economic and resource needs of low-income neighborhoods (such as rates of concentrated poverty). Such social indicator data is useful in capturing the quality of various neighborhoods and the various resources available to residents within the neighborhood (Linney 2000). Mapping demographic neighborhood characteristics using geographic information systems (GIS), which has grown in interest in recent years, organizes information about a neighborhood as it looks from the outside. Google Earth is a popular media approach allowing individuals to view, from a bird's eye perspective, neighborhoods and streets.

While neighborhood effects research for child and youth development has historically focused on these objective, structural characteristics of neighborhood as environment, this methodology has a number of limitations. Where census data define block and tract groups within neighborhoods based on population numbers, residents within a neighborhood – children and adolescents in particular – may define boundaries of neighborhoods by other factors that are more pertinent to their basic needs. For example, boundaries based on proximity of the school or the local market might provide a better understanding of the environment within which adolescents conduct daily life. In addition, structural characteristics fail to capture the complex interaction between young people and these neighborhood influences.

Windshield Surveys or Systematic Social Observations

Systematic recording of neighborhood characteristics represent an on-the-ground approach to neighborhood data collection that is time-consuming but offers a number of advantages to strictly administrative data. Windshield surveys or systematic social observations involve a recording process by which trained researchers drive or walk through a neighborhood and record information in different categories about a neighborhood. For example, Nicotera and Anthony (2006) utilized a systematic recording procedure involving driving the outer and inner street boundaries of Census tract and block groups to record each resource (i.e., elementary school, bank, etc.) that existed within the boundaries of three urban public housing neighborhoods. This information was then used to examine the relationship between structurally identified resources, youth perceptions and experiences of resources, and youth report of neighborhood hassles and cohesion (Anthony and Nicotera 2008).

Systematic recording procedures build on administrative data by allowing the recording of certain resources or problems that might not be captured by the population-level information such as Census data. However, the systematic observations are still recorded by an outsider to the neighborhood and therefore cannot ascribe meaning to any of the observations. One way to address this concern is to involve community members in the research using participatory research methods or checking the researcher assumptions with residents who have extensive experience in the neighborhood.

Neighborhood Rating Scales

Rating scales commonly used in quantitative research are used in neighborhood studies for the purpose of studying neighborhood as environment and place. Rating scales are sometimes used to gather information about neighborhood quality from the perspective of the residents or to capture an insider perspective on social and economic factors identified in studies of structural characteristics of neighborhoods. An example of a neighborhood rating scale includes a measure of neighborhood cohesion that assesses the level of psychological connectedness of neighbors within a neighborhood (Buckner 1988). Similarly, Seidman and colleagues (1995) developed several microsystem scales with low-income, ethnically diverse adolescents to understand young people's perspectives about neighborhood influences. Their neighborhood cohesion measure focuses on the youth's perception of neighborhood dynamics. Participants respond on a 4-point Likert scale to statements such as "If I had the chance, I would like to move out of my neighborhood" and "The relationships I have with my neighbors mean a lot to me." The neighborhood hassles subscale of the Daily Hassles Questionnaire (DHQ; Seidman et al. 1995) assesses microsystem transactions associated with the annoying frustrations within a neighborhood that can be relatively minor (e.g., living in a noisy neighborhood) or major (e.g., being approached by a drug dealer in one's neighborhood). A singular risk factor might be minor, but may become major when these hassles accumulate for young people. Findings from a study of risk and resilience among middle school youth using the DHQ (Seidman et al. 1995) suggests that young people experience different levels of cohesion with neighborhood based on resources from other system levels (Anthony 2008). For example, it may be advantageous to *not* be connected to your neighborhood if you have few other resources and influences in your neighborhood are largely negative.

Neighborhood rating scales are useful in understanding how adolescents experience structural characteristics of their neighborhood and offer the opportunity to explore neighborhood as place and environment. Scales are most often developed by outsiders and are thus subject to the limitations of many of the other quantitative measures that may ascribe language and meaning to different words and phrases that are culturally embedded. Addition of items about the social experiences within neighborhoods, such as social networks and social processes, from a wide range of neighborhood residents can help address some of these limitations (Nicotera 2007).

Qualitative/Mixed Method Measures

The adolescent experience and voice has notably been missing from research on neighborhood influences and innovative data collection strategies such as those described in this section build on the knowledge base of subjective experience and the influence on developmental outcomes. Several different approaches are briefly described below; in-depth discussions of child and adolescent views of neighborhood are available elsewhere (e.g., Lewis and Osofsky 1997; Nicotera 2005a, b, 2008; Sutton 1996).

Structured and Unstructured Interviews

Structured and semi-structured interview guides can be useful in exploring the experience of neighborhood as place for adolescents. Such interviews typically involve a predetermined list of questions or probes that can be utilized in a focus group or individual format. These interview formats allow for expansion and exploration of ideas that are raised during the research process. For example, Burton et al. (1997) measure neighborhood social networks with young people using questions such as "Who does not live in the respondents' home, but to whom the respondents feel closest" and "Who would likely provide some form of assistance in a time of need" (p. 141). In-depth investigations into the experience of neighborhood exemplified by ethnographic research have shed considerable light on the concept of neighborhood. A notable example of ethnographic research with adolescents is Figueira-McDonough's (1998) investigation of the adolescent experience of living in poor inner-city neighborhoods in a southwestern state. In extensive interviews and focus groups, Figueira-McDonough (1998) operationalized neighborhood from the adolescent insider perspective. The study provides information about the meaning of neighborhood experiences in terms of structural constraints such as drug dealing and cultural interpretations of these constraints. Echoing the concept of collective socialization, interestingly, the findings suggest that neighborhood experiences such as normative work experiences of adults in the

neighborhood interact with hopes and aspirations of young people to achieve in the educational arena.

Similar to other qualitative methods, individual interviews are time-consuming and labor intensive. Focus groups are also time-consuming, but often offer a more efficient process for gathering information from a sample of youth and further offer the advantage of the group process in eliciting deeper discussion about specific aspects of the neighborhood experience.

Written Descriptions

With the goal of obtaining the adolescent's insight into the neighborhood experience, written descriptions of neighborhood and neighborhood characteristics are another way to understand the reciprocal relationship between adolescents and their development and neighborhood influences. Particularly because many young people are self-reflective, journals or short essays depicting daily experiences may be an attractive option for data collection. If facilitated correctly, written descriptions also offer the opportunity for young people to take the time to consider factors that are unique to her/his experience rather than to respond in a confirming or disconfirming manner to predetermined questions directed by the researcher. Nicotera (2005a) analyzed the written work of young people responding respondingto a semi-structured interview of questions about their neighborhood and their neighborhood experiences. The analysis revealed multiple dimensions of youth experiences of physical factors (such as dealing with unsafe places) and relational/social experiences (such as people who help) in the neighborhood. The analysis of written work looks for common themes across participants; however, the diversity of experience in interacting with neighborhood experiences can also be captured with these data collection methods.

Photographs

Another method of collecting data from young people about the experience of neighborhood involves the use of photography. Adolescents might be asked to describe neighborhood characteristics as assets or deficits based on different photographs or pictures depicting scenes within a neighborhood. Photographs and pictures offer the advantage of simulating the neighborhood and community within the confines of a research study that is more feasible than, for example, walking with a young person through her/his neighborhood (Bryant 1985). Schiavo (1988) involved young people in the research process by asking them to first describe their neighborhood and then to take a camera and walk through the neighborhood taking a specified number of photographs of "any place in the home or neighborhood that's important to you and any place you care about" (Schiavo 1988, p. 5). This data collection procedure enables youth to capture and describe both resources and deficits that exist within the neighborhood from the subjective experience and also to actively engage in the research process.

The process of photovoice (Wang 2006; Wang et al. 2004) offers a more structured approach than the one employed by Schiavo (1988). "Photovoice is a participatory action research (PAR) method based on health promotion principles and the theoretical literature on education for critical consciousness, feminist theory, and a community-based approach to documentary photography" (Wang 2006, p. 148). Wang and colleagues (2004) suggest a series of questions for participants to pose as they reflect on their photos including: "Why does this situation exist? Do we want to change it, and if so, how?" (p. 911).

Drawings and Cognitive Maps

Particularly where young children are involved, drawings can be an effective way to assist them in articulating the relationship between various structural characteristics, neighborhood resources, and their experiences. With older youth, drawings or cognitive maps enable them to describe how the neighborhood is perceived as well as to visually depict the boundaries of the neighborhood that reflect the subjective experience. For example, Lewis and Osofsky (1997) investigated the experience of neighborhood violence for African American young people aged 8–12 living in low-income neighborhoods. The authors instructed the young people to draw a picture of the neighborhood and what goes on in that neighborhood. The drawings were then analyzed for depictions of various types of violence demonstrated by adults or young people in the neighborhood including verbal threats, physical fights, and robbery.

Drawings offer a distinct advantage in engaging young people in discussions about their neighborhood. For example, drawings offer a concrete depiction from which to launch more abstract discussions about

neighborhood experiences. Drawings are also useful in clinical work with young people to assess how the often-neglected neighborhood experiences might impact the young person's behavior or emotions (Nicotera 2005a). In research, drawings are difficult to systematically analyze and, due to the subjective nature of the individual youth's experience, do not lend to generalizations about neighborhood processes or comparisons with other neighborhoods. When used in conjunction with other measures of neighborhood experience, however, drawings can add another dimension to the conceptualization of the dynamic adolescent–neighborhood relationship.

Conclusion

As the studies reviewed in this essay suggest, considerable progress has been made in understanding the role of neighborhoods in adolescent development. The role of various structural factors in creating risk or providing support in the lives of adolescents has been identified in a number of studies (Brooks-Gunn et al. 1997; Coulton et al. 1995; Coulton et al. 1996; Furstenberg et al. 1999; Leventhal and Brooks-Gunn 2000). That certain structural characteristics such as poverty and mobility are correlated with certain negative outcomes such as school dropout while other structural characteristics such as availability of positive opportunities help protect young people against risks is well-established.

Despite the contributions of these studies, a great deal remains unknown, particularly about the complex interchange that occurs between individual adolescents and their families and the neighborhood context. Adolescents clearly exert influence on, and are in turn influenced by, neighborhood structural and social characteristics. Yet, the precise mechanisms and effects of these influences are not clearly understood. As discussed in this essay, part of the gap lies in the conceptual challenges in defining and delineating the scope of neighborhood. Perhaps a greater challenge has been the historical reliance on administrative measures of neighborhood that alone cannot capture the interaction between individual adolescents and neighborhood-level influences. Neighborhood characteristics and resources influence families and peers, in turn influencing adolescents. The mediating and moderating effects of other ecological system influences such as families are also poorly understood.

Recent studies exploring the subjective experiences of adolescents and attempting to untangle the complexity of the relationship between neighborhood experiences and adolescent developmental outcomes via mixed method approaches offer a promising contribution to the understanding of this phenomenon. Diverse methodologies allow researchers to simultaneously examine very different phenomenon that occur within the seemingly identical experience. Finally, interdisciplinary collaboration in studying neighborhood stimulates the theoretical and methodological synergy that is required to contextualize the important relationship between neighborhoods and adolescent development.

References

Abada, T., Hou, F., & Ram, B. (2007). Racially mixed neighborhoods, perceived neighborhood social cohesion, and adolescent health in Canada. *Social Science & Medicine, 65*, 2004–2017.

Anthony, E. K. (2006). Patterns of risk and resilience among urban youth: An ecological perspective (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3218818).

Anthony, E. K. (2008). Cluster profiles of youths living in urban poverty: Factors affecting risk and resilience. *Social Work Research, 32*(1), 6–17.

Anthony, E. K., & Nicotera, N. (2008). Youth perceptions of neighborhood hassles and resources: A mixed method analysis. *Children and Youth Services Review, 30*(11), 1246–1255.

Booth, A., & Crouter, A. (2001). *Does it take a village: Community effects on children, adolescents, and families.* Mahwah: Lawrence Erlbaum Associates.

Bowen, N., Bowen, G., & Ware, W. (2002). Neighborhood social disorganization, families, and the educational behavior of adolescents. *Journal of Adolescent Research, 17*(5), 468–490.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *The American Psychologist, 32*, 513–531.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design.* Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context to human development: Research perspectives. *Developmental Psychology, 22*, 723–742.

Bronfenbrenner, U. (1989). Ecological systems theory. *Annals of Child Development, 6*, 187–249.

Brooks-Gunn, J., Duncan, G. J., & Aber, J. L. (1997). *Neighborhood poverty.* New York: Russell Sage Foundation.

Bryant, L. (1985). The neighborhood walk: Sources of support in middle childhood. *Monographs for the Society of Child Development, 50* (3, Serial No. 210).

Buckner, J. C. (1988). The development of an instrument to measure neighborhood cohesion. *American Journal of Community Psychology, 16*, 771–791.

Burton, L., Price-Spratlen, T., & Spencer, M. (1997). On ways of thinking about measuring neighborhoods: Implications for

studying context and development outcomes for children. In J. Brooks-Gunn, G. Duncan, & J. Aber (Eds.), *Neighborhood poverty* (Policy implications in studying neighborhoods, Vol. 2, pp. 132–144). New York: Russell Sage Foundation.

Chaskin, R. J. (1995). *Defining neighborhoods: History, theory, and practice.* Chicago: The Chapin Hall Center for Children.

Childress, H. (1994). Place, narrative, and relationship: A new approach to place attachment. In A. Seidel (Ed.), *Banking on design? Proceedings of the twenty-fifth annual conference of the environmental design association* (pp. 55–61). Oklahoma City: Environmental Design Research Association.

Clark, R. L. (1992). *Neighborhood effects on dropping out of school among teenage boys.* Washington DC: Urban Institute.

Coulton, C. J., Korbin, J., Su, M., & Chow, J. (1995). Community level factors and child maltreatment rates. *Child Development, 66*, 1262–1276.

Coulton, C., Korbin, J., & Su, M. (1996). Measuring neighborhood context for young children in an urban area. *American Journal of Community Psychology, 24*(1), 5–28.

Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic deprivation and early childhood development. *Child Development, 65*, 296–318.

Figueira-McDonough, J. (1998). Environment and interpretation: Voices of young people in poor inner-city neighborhoods. *Youth and Society, 30*(2), 123–163.

Fraser, M. W. (Ed.). (2004). *Risk and resilience in childhood: An ecological perspective* (2nd ed.). Washington DC: NASW.

Fraser, M. W., & Terzian, M. A. (2005). Risk and resilience in child development: Principles and strategies of practice. In G. P. Mallon & P. McCartt Hess (Eds.), *Child welfare for the 21st century: An handbook of practices, policies, and programs* (pp. 55–71). New York: Columbia University Press.

Fraser, M. W., Kirby, L. D., & Smokowski, P. R. (2004). Risk and resilience in childhood. In M. W. Fraser (Ed.), *Risk and resilience in childhood: An ecological perspective* (2nd ed., pp. 13–66). Washington DC: NASW.

Furstenberg, F., & Hughes, M. (1997). The influence of neighborhoods on children's development: A theoretical perspective and research agenda. In J. Brooks-Gunn, G. Duncan, & J. Aber (Eds.), *Neighborhood poverty* (Policy implications in studying neighborhoods, Vol. 2, pp. 23–47). New York: Russell Sage Foundation.

Furstenberg, F., Cook, T., Eccles, J., Elder, G., & Sameroff, A. (1999). *Managing to make it: Urban families and adolescent success.* Chicago: The University of Chicago Press.

Garbarino, J. (1995). *Raising children in a socially toxic environment.* San Francisco: Jossey-Bass.

Garcia Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., et al. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67*, 1891–1914.

Garner, C. L., & Raudenbush, C. L. (1991). Neighborhood effects on educational attainment: A multilevel analysis. *Sociology of Education, 64*, 251–262.

Gephart, M. (1997). Neighborhoods and communities as contexts for development. In J. Brooks-Gunn, G. Duncan, & J. Aber (Eds.), *Neighborhood poverty* (Contexts and consequences for children, Vol. 1, pp. 1–43). New York: Russell Sage Foundation.

Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles, uplifts and major life event to health status. *Journal of Behavioral Medicine, 4*, 1–39.

Kemp, S. (2001). Environment through a gendered lens: From person-in-environment to woman-in- environment. *Affilia, 16*(1), 7–30.

Laser, J., & Nicotera, N. (2011). *Understanding and helping adolescents: A multisystemic ecological approach.* New York, NY: Guilford Press.

Law, J., & Barber, B. (2006). Neighborhood conditions, parenting, and adolescent functioning. *Journal of Human Behavior in the Social Environment, 14*(4), 91–118.

Levanthal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin, 126*(2), 309–337.

Lewis, M., & Osofsky, J. (1997). Violent cities, violent streets: Children draw their neighborhoods. In J. Osofsky (Ed.), *Children in a violent society* (pp. 277–299). New York: Guilford.

Linney, J. (2000). Assessing ecological constructs and community context. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 647–668). New York: Kluwer Academic/Plenum Publishers.

McAdoo, H. P. (1995). African American families: Strengths and realities. In H. I. McCubbin, A. I. Thompson, E. A. Thompson, & J. A. Futrell (Eds.), *Resiliency in ethnic minority families* (Vol. 2, pp. 17–30). Madison: Center for Excellence in Family Studies.

Meegan, R., & Mitchell, A. (2001). It's not community round here, it's neighbourhood: Neighbourhood change and cohesion in urban regeneration policies. *Urban Studies, 38*(12), 2167–2194.

Nebbitt, V., & Lombe, M. (2007). Environmental correlates of depressive symptoms among African American adolescents living in public housing. *Journal of Human Behavior in the Social Environment, 15*(2/3), 435–454.

Nicotera, N. (2003). Children and their neighborhoods: A mixed methods approach to understanding the construct neighborhood. Dissertation Abstracts International, (UMI No. 3072123).

Nicotera, N. (2005a). The child's view of neighborhood: Assessing a neglected element in direct social work practice. *Journal of Human Behavior in the Social Environment, 11*, 105–133.

Nicotera, N. (2005b). The neighborhood as resource for family health social work practice. In F. K. Yuen (Ed.), *Family health social work practice with children and families* (pp. 219–251). New York: The Haworth.

Nicotera, N. (2007). Measuring neighborhood: A conundrum for human services. *American Journal of Community Psychology, 40,* 26–51.

Nicotera, N. (2008). Children speak about neighborhoods: Using mixed methods to measure the construct neighborhood. *Journal of Community Psychology, 36*(3), 333–351.

Nicotera, N., & Anthony, E. K. (2006). *Neighborhood resources measure.* Denver: Graduate School of Social Work, University of Denver.

Novak, S., Reardon, S., & Buka, S. (2002). How beliefs about substance use differ by socio-demographic characteristics,

individual experiences, and neighborhood environments among urban adolescents. *Journal of Drug Education, 32*(4), 319–342.

Ogbu, J. U. (1981). Origins of human competence: A cultural-ecological perspective. *Child Development, 52*(2), 413–429.

Plotnick, R., & Hoffman, S. (1999). The effect of neighborhood characteristics on young adult outcomes: Alternatives estimates. *Social Science Quarterly, 80*(1), 1–17.

Rutter, M., & Pickles, A. (1991). Person environment interaction. In T. D. Wachs & R. Plomin (Eds.), *Conceptualization and measurement of organism environment interaction* (pp. 105–141). Washington DC: American Psychological Association.

Sameroff, A. J. (1983). Developmental systems contexts and evolution. In W. Kessen (Ed.), *Handbook of child psychology* (History, theory, and methods, Vol. I, pp. 237–295). New York: Wiley.

Sampson, R., Raudenbush, S., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science, 277*, 918–924.

Schiavo, R. S. (1988). Age differences in assessment and use of a suburban neighborhood among children and adolescents. *Children's Environments Quarterly, 5*(2), 4–9.

Seidman, E., Allen, L., Aber, J. L., Mitchell, C., Feinman, J., Yoshikawa, H., et al. (1995). Development and validation of adolescent-perceived microsystem scales: Social support, daily hassles, and involvement. *American Journal of Community Psychology, 23*(3), 355–388.

Shaw, C., & McKay, H. (1969). *Juvenile delinquency and urban areas* (revisedth ed.). Chicago: University of Chicago Press.

Sheidow, A. J., Gorman-Smith, D., Tolan, P., & Henry, D. B. (2001). Family and community characteristics: Risk factors for violence exposure in inner-city youth. *Journal of Community Psychology, 29*(3), 345–360.

Sutton, S. (1996). *Weaving a tapestry of resistance: The places, power, and poetry of a sustainable society.* London: Bergin and Garvey.

Talbert, J., & McLaughlin, M. (1999). Assessing the school environment: Embedded contexts and bottom-up research strategies. In S. Freidman & T. Wachs (Eds.), *Measuring environment across the life span: Emerging methods and concepts* (pp. 197–228). Washington DC: American Psychological Association.

Tienda, M. (1991). Poor people and poor places: Deciphering neighborhood effects on poverty outcomes. In J. Huber (Ed.), *Macro-micro linkages in sociology* (pp. 167–196). Washington DC: American Psychological Association.

Tietjen, A. (1989). The ecology of children's social support network. In D. Belle (Ed.), *Children's social networks and social support* (pp. 37–69). New York: Wiley.

Vowell, P. (2007). A partial test of an integrative control model: Neighborhood context, social control, self-control, and youth violent behavior. *Western Criminology Review, 8*(2), 1–15.

Wachs, T. (1999). Celebrating complexity: Conceptualization and assessment of the environment. In S. Freidman & T. Wachs (Eds.), *Measuring environment across the life span: Emerging methods and concepts* (pp. 357–392). Washington DC: American Psychological Association.

Wang, C. (2006). Youth participation in photovoice as a strategy for community change. *Journal of Community Practice, 14*, 147–161.

Wang, C., Morrel-Samuels, S., Hutchison, P., Bell, L., & Pestronk, R. (2004). Flint photovoice: Community building among youths, adults, and policy makers. *American Journal of Public Health, 94*, 911–913.

Watkins, M. L. (2001). Listening to girls: A study in resilience. In R. Greene (Ed.), *Resiliency: An integrated approach to practice, policy, and research* (pp. 115–131). Washington DC: NASW.

Wilson, W. J. (1987). *The truly disadvantaged.* Chicago: University of Chicago Press.

Wilson, W. J. (1995). Jobless ghettos and the social outcomes of youngsters. In P. Moen, G. Elder, & K. Luscher (Eds.), *Examining lives in context: Perspective on the ecology of human development* (pp. 527–543). Washington DC: American Psychological Association.

Neocortex

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

The neocortex, often referred to simply as the cortex, is the outermost brain matter covering the more primitive areas of the mammalian brain (for reviews, see Nolt 2009; Nieuwenhuys et al. 2008; Mountcastle 1998). The convoluted tissue is the product of many thousands of years of evolution, having expanded more than any other brain region to become about 80% of humans' brain mass. In fact, the ridges and valleys of the neocortex evolved in order to fit the neocortical sheet into the compact area of the skull. This massive area of the human brain is responsible for the most advanced functions, including rational thought, language, perception, and goal-directed behavior.

At only 2 mm thick, the neocortex is comprised of about 12 billion neurons. A large proportion, about 70%, is made up of pyramidal neurons while the remainder is comprised of stellate neurons. As these neurons differ in their shape, they also differ in their function; pyramidal neurons are excitatory whereas stellate neurons may be either excitatory or inhibitory. For the most part, the neocortex sheet is comprised of six distinct layers of cell bodies and processes. Physically, each layer may differ in size and density, as well as the ratio of each cell type. Functionally, the neocortex may be divided into three general categories: reception from subcortical and cortical regions, integration, and

organization of outputs. Not surprisingly, the layers of the neocortex enable these three functions. The pyramidal neurons found within the six layers further integrate information and send it to subcortical and cortical targets. The vertical units of activation within the layers of neocortex are known as functional columns and hundreds of thousands already have been found in many cortical regions.

The neocortex can be divided into areas based on their general functions: sensory, motor, and association areas. Each sensory function is located in many different areas within the cortex, all of which are arranged in a hierarchical manner. For example, the primary visual cortex is necessary for visual sensation while the inferotemporal cortex is required for the perception of objects. However, about 75% of the neocortex can neither be grouped as sensory or motor areas. Indeed, it is this high percent that is used for supporting the highest cognitive functions found in humans, such as language, foresight, and abstract reasoning.

Besides function, the neocortex can be divided geographically into two hemispheres, each of which can further be divided into lobes: frontal, parietal, occipital, and temporal. It just so happens that each of these lobes also generally is related to certain sensory, motor, or cognitive functions. The occipital lobes are located in the back of the brain and specialize in visual processes. The parietal lobes are located on the top toward the back of the brain. They mediate somatosensory information from the body, as well as engage in visual processing. The temporal lobes are located on the sides of the brain and are involved in auditory and higher visual processing. They also are involved in processes for learning, multimodal integration, and emotion. Finally, the frontal lobes are located in the front of the brain and account for almost half of the neocortex. Involved in higher-order functions, these lobes specialize in motor activity, language functions, personality traits, emotionality, and executive control. For the most part, the two hemispheres of the neocortex are symmetrical; however, there are a few key differences. The left hemisphere is generally important for language-related functions, as it contains Broca's area and Wernicke's area. The right hemisphere specializes in speech intonation, humor, and visuospatial integration. A large bundle of nerves known as the corpus callosum is the means for a majority of the communication between the hemispheres. When severed, the hemispheres act independently in a phenomenon known as "split-brain" (Miller 2004).

Researchers have developed many methods for studying the neocortex and its functions. In early studies, researchers used individuals with brain injuries to conjecture the functions of the damaged area. The electroencephalogram (EEG) also was used widely to measure the electroactivity of the brain and thus see which parts of the neocortex were being activated. With new innovations, measuring brain activity has become much more precise, such as the discovery of functional magnetic resonance imaging (fMRI), which measures blood flow in the brain. Magnetoencephalography (MEG) measures the magnetic fields created by the electronic currents created by firing neurons. Both the fMRI and MEG allow for a better resolution, as well as real-time imaging of brain function, in healthy functioning individuals. Together, these methods continue to provide researchers with the tools to understand the neocortex's nature and function.

The neocortex is a very complex part of anatomy. Although researchers have learned much about its nature and function, it remains a very mysterious and complex machine. Revolutionary technologies, such as the fMRI and MEG, will continue to assist in understanding the neocortex's complex functions and development. These studies undoubtedly will also contribute to important understandings of adolescents as researchers increasingly focus on the neuroscience of adolescent development (Gogtay and Thompson 2010; Luciana 2010).

Cross-References

► Brain Maturation

References

Gogtay, N., & Thompson, P. M. (2010). Mapping gray matter development: Implications for typical development and vulnerability to psychopathology. *Brain and Cognition, 72*, 6–15.

Luciana, M. (2010). Adolescent brain development: Current themes and future directions: Introduction to the special issues. *Brain and Cognition, 72*, 1–5.

Miller, J. (2004). Exaggerated redundancy gain in the split brain: A hemispheric coactivation account. *Cognitive Psychology, 49*, 118–154.

Mountcastle, V. B. (1998). *Perceptual neuroscience: The cerebral cortex*. Cambridge, MA: Harvard University Press.

Nieuwenhuys, R., Voogd, J., & van Huijzen, C. (2008). *The human central nervous system* (4th ed.). New York: Springer.

Nolt, J. (2009). *The human brain: An introduction to its functional anatomy* (6th ed.). Philadelphia, PA: Elsevier.

Neuroimaging and Electroencephalography

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

Neuroimaging refers to a variety of methodologies that visualize the structure or function of elements of the nervous system (for reviews relating these methods to adolescents, see Luna et al. 2010; Segalowitz et al. 2000). These methods considerably focus on the brain and on providing in vivo views of it. Structural neuroimaging generates images of the brain's soft-tissue structure by computerized tomography scanning ("CT") or magnetic resonance imaging ("MRI"). Images can capture the brain while in action, and thus measure cognitive activity, through functional neuroimaging that is conducted by positron emission tomography scanning ("PET"). The process of imaging brain activity involves inferring the presence of high metabolic rates in structures involved in the cognitive process. Another popular method is the functional MRI ("fMRI"), which is a hybrid of structural and functional neuroimages that combines structural representations with information about brain activity extracted from functional scans.

Another approach used to determine the functionality of the brain is the electroencephalogram ("EEG"). EEGs use electrodes to measure electrical impulses of brain activity and are meant to be able to detect structural brain abnormalities. Importantly, EEGs are not neuroimaging in that they do not provide images brain activity; instead they track waves. Still, EEGs are an important way to conduct neurological evaluations and conduct research with adolescents.

References

Giorgio, A., Watkins, K. E., Chadwick, M., James, S., Winmill, L., Douaud, G., et al. (2010). Longitudinal changes in grey and white matter during adolescence. *NeuroImage, 49*, 94–103.

Luna, B., Padmanabhan, A., & O'Hearn, K. (2010). What has fMRI told us about the development of cognitive control through adolescence. *Brain and Cognition, 72*, 101–113.

Segalowitz, S. J., Santesso, D. L., & Jetha, M. K. (2000). Electrophysiological changes during adolescence: A review. *Brain and Cognition, 72*, 86–100.

Neurons and Neurotransmitters

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

Neurons and neurotransmitters are key components of the nervous system that are notable for their changes during the life course, including the adolescent period. Neurons, otherwise known as nerve cells, serve to generate, propagate, and integrate microelectric signals sent from other neurons. Neurons consist of the soma (cell body), dendrites that receive messages via neurotransmitters from other neurons across the synapse, and axons that transmit messages from one cell across the synapse to another cell. Neurotransmitters are the chemicals that serve as messengers carrying information from one neuron to another. Both neurons and neurotransmitters are exceedingly complex, difficult to investigate directly, and increasingly the subject of important research relating to typical and atypical development during the adolescent period.

Although it is well known that the brain develops considerably in the first 2 decades of life, especially during the adolescent period, it is important to consider that the brain also grows in terms of the complex networks of nerve sells that determine how it functions. In fact, those networks are the major sources of growth: the human brain reaches adult size by about 12 years of age, but a number of structural and chemical changes take place across adolescence and into young adulthood (see, e.g., Segalowitz et al. 2010). Thus, the brain just does not get bigger, it gets better. And, the way it gets better is through changes in its functioning. The brain's basic functional elements are neurons joined together in information processing neuronal networks. It is these networks that turn sensory information (such as sights, sounds, and smells) into complex patterns of behavior. As a result of learning, age and experience, neuronal networks change, and that change involves the biology of synapses (the connections between neurons). Changes in neuronal connectivity, known colloquially as the brain's wiring, constitute the critical change that occurs in the brain after birth. The nerve cells may not increase in number; in fact, they decline during adolescence, but the connections' richness and complexity increase so that the

networks can process complex information much more efficiently and readily. Thus, from birth to adulthood, the brain changes and doubles in size, and that growth relates to the brain's increased ability to work effectively.

It is now well known that the number of synapses changes during the first 2 decades of life. This process is both progressive and regressive. The process involves an emergence of new connections as well as lack of development in others; the process is understood as pruning, a process that eventually refines the architecture of connections and stabilizes the maturation process by early adult life (Segalowitz et al. 2010). During early childhood, neurons are viewed as expressing an excess of synapses that do not make contact with other cells to transfer information; the neurons that do not make contact regress, while those that do thrive as they reach other neurons. This excess of neurons is what is meant when researchers refer to the plasticity of early development. Plasticity means that the brain can adapt to losses as it has excess neurons that could find connectors. Thus, for example, injury or damage to the brain during childhood need not mean that the brain cannot recover; but, later, recovery is more challenging because of the more limited potential for cells to find alternative wiring (see Guerri and Pascual 2010).

The development of neurons relies on several factors, not the least of which are neurotransmitters. For example, when two neurons make contact, each cell sends out proteins that, essentially, tell the other cell to grow a synapse and hold tight. The proteins permit the transfer of information, and the direction of the information transfer is determined by neurotransmitters, which are the messenger chemicals that change the electrical excitability of the neurons. In the parlance of neuroscience, the presynaptic is the neuron releasing the neurotransmitter; the postsynaptic is the one that the neurotransmitter excites. This process continues as the number of functioning synapses grows, with some synapses being excitatory and others being inhibitory. From birth to early adulthood, most of the pruning, or loss, of synapses involves excitatory synapses (Lidow et al. 1991). This means that, by early adulthood, the brain has undergone a transformation in circuitry and its circuits permit much more inhibition.

The developmental process occurs while the brain becomes more efficient in processing information as there is growth and elaboration in other neuronal connections such as those that connect different regions of the cortex and permit the storage and retrieval of information across brain regions. For example, during adolescence, there is a growth of neurons in the prefrontal cortex that reflects a more intricate web of information flow (Lambe et al. 2000). These changes occur due to genes that are activated by cells, and these synthesize proteins as the brain rises to maturational challenges (Romanczyk et al. 2002). As expected, these changes are particularly active during adolescence. The high activity of genes related to synapse reorganization during adolescence reflects genetic programs that make early adolescence a time of dramatic synaptic reorganization in the cortex (Webster et al. 2002). These changes are likely due to hormonal changes (such as the sex hormones estrogen and testosterone) and other maturational factors. In addition, the process of mylenation, the insulating of nerve fibers, continues during adolescence. Brain circuits achieve their maturity when they have become covered with myelin, and that is the point that they have achieved their adult role; this change is reflected by changes in the volume of white matter during adolescence (see Thompson et al. 2005).

The adolescent period involves a time of increased robustness in neurons that provide more general alerting and orienting signals that help focus the activity of information processing networks within the cortex. For example, cells that carry the neurotransmitter dopamine in the prefrontal cortex reveal this pattern. Adolescence is marked by a dramatic increase in dopamine inputs to the prefrontal cortex, a growth that helps account for the capacity for more mature judgment and impulse control (Lambe et al. 2000). Importantly, dopamine is of significance not only for helping the brain learn more effectively but also for possibly increasing its vulnerability to, for example, certain drugs that could contribute to a higher risk of drug abuse and damage to brain development (Wahlstrom et al. 2010). Dopamine is viewed as particularly important to adolescent development in that it is the primary transmitter that acts within and across limbic, striatal, and frontal circuitry to promote incentive-guided behavior and its regulation. Understanding dopamine's place in adolescent development highlight well how changes in many parts of the brain also occur during adolescence.

Importantly, research on neurotransmitters may focus heavily on dopamine, especially because it is

thought to relate to several psychiatric disorders (such as Tourette syndrome, schizophrenia, and attention-deficit disorders), but other neurotransmitters also have been implicated in disorders and are important to consider during the period of adolescence. Most notably, serotonin and norepineprhine have received increasing interest. Serotonin has various functions, including the regulation of mood, appetite, and sleep; imbalances of serotonin have been associated with depression, suicide, impulsive behavior, and aggressiveness (see, e.g., Usala et al. 2008). Norepinephrine is involved in arousal, attention, and mood; and attention-deficit/hyperactivity disorder (ADHD) is one of the most widespread and clinically significant psychiatric disorders that involve norepinephrine (Hahn et al. 2009). The links between these neurotransmitters and these outcomes are very nuanced, with several studies reporting conflicting results and highlight the complexity of factors that influence developmental outcomes. For example, deficiencies in serotonergic functioning have been shown to interact with certain family interaction patterns to contribute to the development of emotional lability and risk for self-injury (see Crowell et al. 2008). Such studies highlight the need for complex research designs that consider multiple factors to understand the function of neurotransmitters.

During the period of adolescence, the dramatic changes in the brain involve, at the most basic level, critical molecular rearrangements. These changes affect how the brain processes information from one cell to another, and the changes tend to level off at the end of adolescence. These changes are important to consider as the focus on adolescents' brain development tends to center on development in terms of the size of the brain rather than the connections that make it work.

Cross-References

► Brain Maturation

References

Crowell, S. E., Beauchaine, T. P., McCauley, E., Smith, C. J., Vasilev, C. A., & Stevens, A. L. (2008). Parent-child interactions, peripheral serotonin, and self-inflicted injury in adolescents. *Journal of Consulting and Clinical Psychology, 76*, 15–21.

Guerri, C., & Pascual, M. (2010). Mechanisms involved in the neurotoxic, cognitive, and neurobehavioral effects of alcohol consumption during adolescence. *Alcohol, 44*, 15–26.

Hahn, M. K., Steele, A., Couch, R. S., Stein, M. A., & Krueger, J. J. (2009). Novel and functional norepinephrine transporter protein variants identified in attention-deficit hyperactivity disorder. *Neuropharmacology, 57*, 694–701.

Lambe, E. K., Krimer, L. S., & Goldman-Rakic, P. S. (2000). Differential postnatal development of catecholamine and serotonin inputs to identified neurons in prefrontal cortex of rhesus monkey. *Journal of Neuroscience, 20*, 8780–8787.

Lidow, M. S., Goldman-Rakic, P. S., & Rakic, P. (1991). Synchronized overproduction of neurotransmitter receptors in diverse regions of the primate cerebral cortex. *Proceedings of the National Academy of Sciences, 88*, 10218–10221.

Romanczyk, T. B., Shannon-Weickert, C., Webster, M. J., Akil, M., Herman, M. M., & Kleinman, J. E. (2002). Alterations in trkB mRNA in the human prefrontal cortex across the life span. *European Journal of Neuroscience, 2*, 269–280.

Segalowitz, S. J., Santesso, D. L., & Jetha, M. K. (2010). Electrophysiological changes during adolescence: A review. *Brain and Cognition, 72*, 86–100.

Thompson, P. M., Sowell, E. R., Gogtay, N., Giedd, J. N., Vidal, C. N., Hayashi, K. M., et al. (2005). Structural MRI and brain development. *International Review of Neurobiology, 67*, 285–323.

Usala, T., Clavennab, A., Zuddasa, A., & Bonati, M. (2008). Randomised controlled trials of selective serotonin reuptake inhibitors in treating depression in children and adolescents: A systematic review and meta-analysis. *European Neuropsychopharmacology, 18*, 62–73.

Wahlstrom, D., Collins, P., White, T., & Luciana, M. (2010). Developmental changes in dopamine neurotransmission in adolescence: Behavioral implications and issues in assessment. *Brain and Cognition, 72*, 146–159.

Webster, M. J., Shannon-Weickert, C., Herman, M. M., & Kleinman, J. E. (2002). BDNF mRNA expression during the postnatal development, maturation and aging of the human prefrontal cortex. *Brain Research. Developmental Brain Research, 139*, 139–150.

Neuroticism

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

The construct of neuroticism refers to the ease and frequency with which a person becomes upset and distressed. Sometimes called emotional instability, neuroticism involves a tendency to experience negative emotions, such as moodiness, anxiety, depression, and anger. The experience of anxiety and sensitivity to threat and stress are at the emotional core of neuroticism (Caspi et al. 2005). Given these tendencies, individuals who score highly on neuroticism tend to view

threats in ordinary situations, experience minor frustrations as hopelessly difficult, and have a low self-esteem and low life satisfaction (see, e.g., Clark et al. 1994). Neuroticism is a personality dimension identified as one of the most notable personality dimensions in the leading model of personality development, the Big Five model, with the others being agreeableness, conscientiousness, extraversion, and openness to experience(see McCrae and Costa 1987, 1997).

Neuroticism tends to be viewed quite negatively. This view is supported by the reality that individuals who score high on neuroticism tend to be in a bad mood, and the negative emotional responses to situations tend to persist for unusually long periods. As these tendencies suggest, neuroticism relates to the diminished ability to think clearly, make good decisions, and cope effectively with stress; their approach to coping tends to involve disengagement, particularly withdrawal, wishful thinking, passivity, and distraction (see Carver and Connor-Smith 2010). The opposite is true of those who are low on neuroticism; they tend to be less easily upset, less emotionally reactive, and free of persistent negative feelings (although they may not necessarily experience a high number of positive feelings). People who score highly on neuroticism, then, tend not to be fun or uplifting associates.

Although popular images of adolescents would deem them as more emotionally unstable than adults, this area of research tends to show the opposite. Studies of emotional stability reveal that, generally, adolescents score higher on measures of emotional stability than do adults (McCrae and Costa 1994; McCrae et al. 2000). In addition, during the adolescent period (in this case, specifically between the ages of 12 and 18), emotional stability decreases notably for girls only (McCrae et al. 2002), and that decrease in emotional stability continue for a while during young adulthood (Robins et al. 2001; Vaidya et al. 2002).

Although neuroticism can place adolescents at risk for a wide range of negative outcomes, depressive symptoms and depression itself have attracted the most recent attention from researchers. That research reveals that high levels of neuroticism present a critical vulnerability factor for the initiation of depressive symptoms in adolescents, and that it plays an important role in maintaining depression (Yang et al. 2008). Initial levels of neuroticism actually predict the occurrence of additional stressors, and these stressors help explain the prospective association between neuroticism and increases in depression over time (Hankin 2006). Neuroticism serves both as a preexisting vulnerability for depression as well as for its development and maintenance. Life events and personality traits like neuroticism, then are not merely two independent risk factors for depression, individuals who score highly on neurotic tendencies are viewed as contributing to their negative environment. The reason for these links is that adolescents with higher neuroticism tend to perceive negativity and threat, which makes the experience of negativity at least partly dependent on their own behavior; the way they cope, for example, has been viewed as increasing depressive symptoms (see Kercher et al. 2009). Given that adolescence is a period when depressive symptoms increase, and that depressive symptoms appearing during adolescence usually persist into later life (see Yang et al. 2008), the practical implications for these findings are numerous and highlight the need for a focus on adolescents exhibiting neurotic tendencies.

References

Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. *Annual Review of Psychology, 61*, 679–704.

Caspi, A., Roberts, B. W., & Shiner, R. L. (2005). Personality development: Stability and change. *Annual Review of Psychology, 56*, 453–484.

Clark, L. A., Watson, D., & Mineka, S. (1994). Temperament, personality, and the mood and anxiety disorders. *Journal of Abnormal Psychology, 103*, 103–116.

Hankin, B. L. (2006). Adolescent depression: Description, causes, and interventions. *Epilepsy & Behavior, 8*, 102–114.

Kercher, A. J., Rapee, R. M., & Schniering, C. A. (2009). Neuroticism, life events and negative thoughts in the development of depression in adolescent girls. *Journal of Abnormal Child Psychology, 37*, 903–915.

McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology, 52*, 81–90.

McCrae, R. R., & Costa, P. T. (1994). The stability of personality: Observation and evaluations. *Current Directions in Psychological Science, 3*, 173–175.

McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist, 52*, 509–516.

McCrae, R. R., Costa, P. T., Jr., Ostendorpf, F., Angleitner, A., Hrebickova, M., Avia, M. D., et al. (2000). Nature over nurture: Temperament, personality, and life span development. *Journal of Personality and Social Psychology, 78*, 173–186.

McCrae, R. R., Costa, P. T., Jr., Terracciano, A., Parker, W. D., Mills, C. J., De Fruyt, F., et al. (2002). Personality trait development from age 12 to age 18: Longitudinal, cross-sectional and

cross-cultural analyses. *Journal of Personality and Social Psychology, 83*, 1456–1468.
Robins, R. W., Fraley, R. C., Roberts, B. W., & Trzesniewski, K. H. (2001). A longitudinal study of personality change in young adulthood. *Journal of Personality, 69*, 617–640.
Vaidya, J. G., Gray, E. K., Haig, J., & Watson, D. (2002). On the temporal stability of personality: Evidence for differential stability and the role of life experiences. *Journal of Personality and Social Psychology, 83*, 1469–1484.
Yang, H.-J., Chiu, Y.-J., Soong, W.-T., & Chen, W. (2008). The roles of personality traits and negative life events on the episodes of depressive symptoms in nonreferred adolescents: A 1-year follow-up study. *Journal of Adolescent Health, 42*, 378–385.

Nightmares

Janice M. Roberts[1], Christopher J. Lennings[2]
[1]Private Practice, Sydney, NSW, Australia
[2]University of Sydney, Woy Woy, NSW, Australia

▶ To sleep, perchance to dream – ay, there's the rub.
Shakespeare, *Hamlet* (III, I, 65–68)

Overview

While the occasional nightmare may come and go with barely a backward glance by the dreamer, those who endure frequent nightmares can find the experience disturbing in their waking lives. The cause of nightmares is a source of debate. Some theories about the causes of nightmares focus on nightmares as a means of representing or releasing stress built up in waking life. Other theories propose nightmares are a result of physiological processes within the brain, unrelated to daily stressors. Whatever their cause, nightmares may generate conditions such as depression, anxiety, and insomnia, interfering with the dreamer's daily life and sense of well-being. In recent years, nightmare experience has been associated with suicidal behavior, an indication that nightmare experience may prove to be a clinical indicator for a person at risk of self-harm.

Nightmare Experience

▶ Deep into the darkness peering, long I stood there, wondering, fearing, doubting, dreaming dreams no mortal ever dared to dream before.
Edgar Allan Poe, *The Raven*

Nightmares are typically frightening and lengthy dream sequences depicting threats to the dreamer (*DSM-IV*, APA 1994). In the nightmare, the threat may be presented as physical danger or as emotional danger such as humiliation or personal failure (*DSM-IV*, APA 1994). Usually, the dreamer is easily awakened, able to recall details of the dream immediately, and has good recall of the dream the next morning (Erman 1987). Where nightmares become sufficiently frequent and distressing to cause dysfunction to the individual, they may enter the realm of Nightmare Disorder as listed in the *DSM-IV* (APA 1994). Nightmare Disorder is characterized by the frequent occurrences of frightening dreams leading to awakening from sleep and interfering with daily functioning (*DSM-IV*, APA 1994).

Nightmares are characterized by sleeping distress comprising intense emotions experienced by the dreamer during the dream itself. Emotions commonly experienced during nightmares include fear, panic, grief, humiliation, and disgust. The effect of nightmares is not confined to sleeping hours, as nightmares can also cause distress during waking life. This waking distress, also known as the "nightmare hangover" (Krakow and Neidhardt 1992), involves the dreamer being disturbed by memories of the nightmare content, fearing that nightmares will recur, having difficulty returning to sleep after a nightmare, avoiding people who have appeared in the dreamer's nightmares, or fearing that frightening events depicted in nightmares will happen in the future (Belicki 1992b; Krakow and Neidhardt 1992).

Not surprisingly, the derivation of the word "nightmare" reflects the terror that frightening dreams excite in the dreamer. "Nightmare" may be derived from the Anglo-Saxon word, "mare," a demon, which is derived from the Sanskrit "mara," meaning destroyer (Blanes et al. 1993). The French word for nightmare is "cauchemar," from the same Sanskrit root together with "caucher," meaning to tread upon (Mack 1974).

Nightmares and Sleep Disturbance in Young People

Research has estimated that sleep disorders of some kind occur in 35–45% of children and adolescents between the ages of 2 and 18 years (Anders and Eiben 1997; DiMario and Emery 1987; Levin 1994). The *DSM-IV* (APA 1994) states that between 10% and

50% of children aged 3–5 years have nightmares sufficiently intense to disturb their parents. Problems with nightmares lessen as the child approaches adolescence, but in a minority a problem with nightmares continues into adulthood (*DSM-IV*, APA 1994).

Research indicates the incidence of nightmares in younger adolescents is less than in older adolescents, nightmare experience tending to increase with the advent of physical changes and new responsibilities for the older adolescent (*DSM-IV*, APA 1994; Kashani et al. 1989; O'Malley and Bachman 1983). Generally, the observed pattern seems to be that there is a higher incidence of nightmares among young children, which decreases as they become more autonomous, but that the nightmares increase again over time with the stressors of adolescence associated with puberty, school, relationships, and taking on greater adult responsibility (Kashani et al. 1989; O'Malley and Bachman 1983). In older age, it appears fewer dreams are reported (Giambra et al. 1996).

Persistent nightmares can cause fear of going to sleep, fear of returning to sleep, frequent waking, and disturbed sleep patterns (*DSM-IV*, APA 1994; Hearne 1991; Krakow et al. 1995b). As a result, disturbing nightmares produce a sleep pattern disorder similar to insomnia (Krakow et al. 1995b). It is not necessarily the case; however, it is the frequency of the nightmares that causes the sleep disturbance. At least one study has found that it is the waking distress associated with the nightmare that is associated with reduced sleep quality, rather than the frequency of nightmare occurrence (Belicki et al. 1997).

Depending on the severity and duration of the sleep disturbance, sufferers may be prone to additional problems such as learning difficulties, fatigue, irritability, aggression, cognitive impairments, and even disorientation, delusions, and hallucinations (Anders and Eiben 1997; Stores 1996). Sleep disturbance in child psychiatric inpatients has been found to be associated with depression, hopelessness, and low self-esteem (Sadeh et al. 1995). Sleep disturbance in adolescents from the normal population has been found to be associated with anxiety, depression, and social inhibition (Morrison et al. 1992).

Theories About Nightmares

Stress and nightmares have long been thought to be connected. Some theories about the relationship between stress and nightmares tend to feature themes of representing, regulating, or safely expressing excessive emotional responses to stressors. Other theories focus on physiological processes within the brain during sleep.

Freud categorized nightmares as a subspecies of dreams, which he labeled "anxiety-dreams" (Freud 1900, p. 160). According to Freud's dream theories, all dreams, including nightmares, represent the fulfillment of a wish. Nightmares take unacceptable repressed wishes generated by the unconscious mind, which would otherwise be overwhelming to the conscious mind, and liberate the associated anxiety using the safe conduit of the dream (Freud 1900, p. 580). The result is that nightmares represent a line of defense against the intrusion of impulses that, if they became conscious, would cause great anxiety and distress to the person because of their unacceptable nature (Shapiro 1987).

Jung (1960) proposed that dreams perform a compensatory function in which repressed issues are exposed to the conscious mind in dreams, aiding in the self-regulation of the unconscious by reducing the stress of keeping issues confined to the unconscious. Nightmares, or anxiety dreams, are generated when the issue being presented has "vital significance" for the individual's life (Jung 1960).

Mack (1974) proposed that nightmares are generated in response to the earliest and most powerful anxieties experienced in childhood, such as fears of aggression, separation, and abandonment. The conflict created in the child between hostility toward the caregiver, and fear of care being taken away if the hostility is acted upon, is played out in the nightmare. When the adult perceives a threat to the self, whether real or exaggerated, the anxiety related to those childhood conflicts arises again in response to the immediate stressor, generating frightening nightmares in the adult as it did in the child (Cuddy and Belicki 1996; Mack 1974, pp. 17, 59).

Nielsen and Levin (2007) theorized that nightmares arise from a failure in the fear extinction aspect of dreaming processes. Hartmann (1998) suggested that dreaming provides a cross-connecting function where the individual's stress level is reduced by associating current stressors with familiar previous experiences. Revonsuo (2000) suggested that dreams simulate threats to the dreamer to rehearse recognition of threats and

threat avoidance. Levin and Hurvich (1995) proposed that nightmare experience is connected with annihilation anxiety (fear of death or catastrophe). Roberts and Lennings (2006) explored whether nightmare experience is connected with personality variables in adolescents and found nightmare distress to be connected with neuroticism (the trait of being prone to anxiety).

Taking a physiological perspective, Hearne (1991) proposed that nightmares result from "an excessive physiological lowering of an anxiety/sensitivity threshold during slow-wave sleep," which is not correctly readjusted during the following rapid eye-movement (REM) period of sleep. In this view, nightmares result from a physiological process and are unlikely to be solely psychologically caused (Hearne 1991). Similarly, Hobson (1997) proposed that the physiological basis for dreaming is altered neurophysiology during REM sleep.

Nightmares and Stressors

Nightmares have been found to be associated with stress caused by experiencing negative life events (Anders and Eiben 1997; Chambers and Belicki 1998; Dunn and Barrett 1988; Hearne 1991; Kales 1980). Life events may exert an influence on stress levels either through the number of events experienced, or by the degree of stress entailed in dealing with the event. The severity of the impact of stressful life events is mediated by other circumstances such as previous experience with similar events, degree of anticipation, the amount of support available to the individual, and the degree of control the individual perceives he or she has over the event (Liakopoulou et al. 1997). Events that have been specifically identified as associated with nightmares include stressors connected with psychosexual developmental (Mack 1974), grief and loss (Garfield 1996), childhood neglect (Claridge et al. 1998), drugs (Vogel et al. 1989), experience as a refugee (Aron 1996), and rape and sexual abuse (Darves-Bornoz et al. 1998; King and Sheehan 1996; Muller 1996; Cuddy and Belicki 1992; Hearne 1991).

In considering the impact of stressors, it is important to note that children and adolescents may perceive stressful life events to be more threatening than they are in reality, because children and adolescents are more dependent on their families for support and less in control of the factors leading to or resulting from family problems (Mack 1974, p. 17; Stern and Zevon 1990). For children and adolescents, where family problems occur, the support base they would normally rely on to help them manage or control problems in their life, itself becomes the source and context of the problem.

Drawing a connection between nightmares and family stressors in young people, a survey of adolescents found that their nightmare experience was connected with social stressors, such as family quarreling and the illness of a close person (Schredl et al. 2008).

However, not all nightmares can be traced to a causal life event (Belicki and Cuddy 1991). Genetic influences may also be a cause of nightmares in some cases. Relatives of nightmare sufferers tend to have high levels of nightmares and other sleep disorders such as sleepwalking (Anders and Eiben 1997; Murray 1990). Psychopathology, psychological difficulties, schizoid tendencies, and borderline personality traits are also more frequently found in the families of nightmare sufferers than in non-sufferers (Claridge et al. 1997; Kales 1980; Madrid et al. 1999; Murray 1990).

Nightmares: Stress Reduction or Induction

To the extent that arousal to and rumination on negative life events may be mediated by coping, nightmares may have a role to play in either reducing a stress response through allowing an abreactive release of tension, or may decrease coping by increasing the net experience of anxiety through a person waking with high levels of nightmare-related stress. Some studies have shown that nightmares are associated with stress reduction, while others have shown nightmares to be connected with high levels of anxiety and stress.

Stress reduction: An adaptive role for nightmares has been proposed, consistent with the hypotheses raised by Jung (1960) and Mack (1974), suggesting that dreaming can constitute a type of protective mechanism that helps the brain to reduce stress while assimilating emotional reactions to stressful life circumstances (Daniels and McGuire 1998; Firth et al. 1986). This adaptive function was explored in a study of young people with an average age of 19.5 years, which found that nightmares and coping with stress were positively associated (Picchioni et al. 2002). In a study of young women, higher levels of depression were found to be associated with lower levels of intense dreaming (Barrett and Loeffler 1992). Women who experienced dreams with a more nightmarish quality have been

found to be less likely to develop postpartum depression than those women who did not have similar dream experiences (Kron and Brosh 2003). These three studies tend to support the proposal that the dreamer's intense emotions are exercised during sleep, suggesting nightmares may be a coping mechanism assisting in stress reduction.

Stress induction: Not all studies have found nightmares to be associated with reduced stress. In one study, subjects experienced significantly higher anxiety and were of a less stable mental condition after nights where they experienced nightmares compared to nights where they did not experience nightmares (Koethe and Pietrowsky 2001). Nightmare experience has been commonly found to be associated with anxiety in children (Mindell and Barrett 2002), adolescents (Levin and Fireman 2002; Nielsen et al. 2000), and adults (Zadra and Donderi 2000). Specific forms of anxiety and anxiety-related phobias shown to correlate with nightmares include global phobic anxiety (Kroth et al. 1997), annihilation anxiety (Kroth et al. 2001), anxiety related to childbirth (Saisto and Halmesmaki 2003), blood phobia (Lumley and Melamed 1992), and guilt and failure anxiety (Starker 1984).

Induction or reduction: To investigate whether negative life events are associated with an increase or decrease in stress attributable to nightmares in adolescents, a study on 624 adolescents aged between 12 and 19 was conducted by Roberts et al. (2009). Findings indicated no support for a stress reduction hypothesis. Results showed that there seems to be no relief from anxiety if a young person reports nightmares, and the stronger the waking distress experienced because of nightmares, the more likely the young person is to report anxiety, controlling for life events and the distress associated with life events.

The finding that nightmare incidence does have some impact on nightmare distress fits at least with common sense notions that the more one experiences nightmares, the more distressed one is likely to be. Results from the study suggest that adolescents who experience nightmare waking distress, nightmare sleeping distress, or frequent nightmares are more likely to have experienced more major negative life events and to report more distress associated with those negative life events. Results also suggest that it is not simply the number of nightmares that drives their relationship to waking anxiety, but rather the distress associated with them. This result is in line with findings from previous research (Belicki 1992b, 1999; Levin and Fireman 2002) and has implications for the treatment of people coping with nightmares.

Gender Differences in Reported Nightmare Experience

There is a gender difference in nightmare reporting in the adult population. The *DSM-IV* (APA 1994) states that up to 50% of adults report at least an occasional nightmare, but females report nightmares more often than males at a ratio of approximately 2–4:1 (*DSM-IV*, APA 1994, p. 581). Higher reporting of nightmare recall, frequency, and distress by females has been found in several research studies (Belicki 1992b; Claridge et al. 1997; Giambra et al. 1996; Levin and Hurvich 1995; Nielsen et al. 2006; Tan and Hicks 1995; Yu 2008). However, at least two studies have found no gender difference in nightmare reporting and recall in adults (Chivers and Blagrove 1999; Schredl 2000; Zadra and Donderi 2000).

A study of adolescent boys and girls aged 13 and 16 found that reported dream recall was greater for girls than for boys at both ages. Dream recall increased over time for girls while it decreased for boys (Nielsen et al. 2000). Another study on children and adolescents found girls reported significantly more sleep problems, including nightmares, than boys (Mahendran et al. 2006).

A two-part study (Roberts and Lennings 2006; Roberts et al. 2009) showed differing results. The first group of 147 adolescents with an average age of 14 years showed no significant gender difference in reporting of nightmares. In the second group, comprising 625 adolescents with an average age of 15.8 years, girls reported significantly more nightmares than boys. Since the first group was significantly younger than the second group, the participants in the first group may not have yet reached an age where gender differentiation in nightmare experience appears.

Nightmares and Suicidal Behavior

The last 2 decades have seen an increase in research into the connections between suicidal behavior, nightmares, and other sleep disturbances in adolescents. Research with children, adolescents, and adults has shown that nightmares and other sleep disorders are associated with suicide, suicidal ideation, and emotional disorders

(Agargun et al. 1997, 1998; Bernert et al. 2005; Choquet and Menke 1990; Kashani et al. 1989; Kosky et al. 1990; Robbins and Alessi 1985; Shaffer et al. 1996; Singareddy and Balon 2001). A study on adolescents who had thought about suicide found they displayed more violent behaviors, had more general health problems and experienced high levels of nightmares (Choquet and Menke 1990). A study on adults reported the finding that a high frequency of nightmares was directly related to a high risk of suicide (Tanskanen et al. 2001). A more recent study on adult suicide attempters found that nightmares were connected with a fivefold increase in suicidal risk (Sjostrom et al. 2007).

While the evidence is still emerging, it seems likely that nightmares and suicidal behaviors are connected. A pattern of nightmares and other sleep disturbances may be a clinical indicator for an increased suicide risk, representing warning signs and accessible targets for treatment with a view to suicide prevention in adolescents (Bernert and Joiner 2007; Sher 2008; Xianchen 2004; Xianchen and Buysse 2006).

Treatments for Nightmares

Various treatments have been used with some success to reduce nightmare frequency and/or distress. Successful treatment methods used include nightmare recording techniques (Burgess et al. 1998; Krakow et al. 1993), art therapy (Johnson 1987), rehearsal (Marks 1978), lucid dreaming techniques (Brylowski 1990; Zadra and Pihl 1997), and repetition incorporating a changed, more positive ending (Krakow et al. 1995a). Other successful treatment methods include cognitive-behavioral image rehearsal techniques (Krakow et al. 1993), re-exposure to the nightmare images and posthypnotic suggestion (Gorton 1988), and relaxation techniques using anxiety management methods (Miller and DiPilato 1983). In one study, using hypnosis to review dreams decreased nightmares in a child and adolescent group (Linden et al. 2006).

From the research literature it appears that nightmare frequency has been shown to have only a slight relationship with nightmare distress (Belicki 1992b; Levin and Fireman 2002; Wood and Bootzin 1990). Research suggests that the dreamer's reaction to their dream, not the dream itself or the frequency of dreams, is the important factor in waking distress (Belicki 1991, 1992a, b). People who take the dream too seriously as a sign of psychological disturbance, a prophecy or a revelation of their own deeper insights may suffer more waking distress over their nightmares than others (Belicki 1991). If this is the case, then treatment that addresses a dreamer's waking responses to nightmares is more likely to be successful than treatment which focuses on eliminating the nightmares or reducing their frequency (Belicki et al. 1997).

. . . and to All, a Goodnight!

Not every young person reports experiencing nightmares. Although estimates vary widely, about one-fifth of individuals do not report remembering dreams of any kind, or only very rarely. Whatever one's age is, and whether their nightly journeys into the unconscious are peaceful or otherwise, no doubt many would occasionally identify with Arthur Dent who "felt that his whole life was some kind of dream and he sometimes wondered whose it was and whether they were enjoying it" (Douglas Adams (1979), 1952–2001, *The Hitchhiker's Guide to the Galaxy*).

Major Theorists and Researchers

Dr. Deirdre Barrett, Assistant Professor, Department of Psychology, Harvard Medical School, Harvard University, and Editor-in-Chief, *Dreaming: Journal of the Association for the Study of Dreams.*

Dr. Kathryn Belicki, Professor, Department of Psychology, Brock University, Ontario, Canada.

Gordon Claridge, Emeritus Professor of Abnormal Psychology in Oxford University and Emeritus Fellow of Magdalen College, and Visiting Professor in the Department of Psychology, Oxford Brookes University.

Ernest Hartmann, M.D., former IASD President, Professor of Psychiatry at Tufts University School of Medicine, and lecturer in psychiatry at Boston University School of Medicine.

Dr. Barry Krakow, Medical Director, Maimonides Sleep Arts & Sciences, Ltd., Sleep & Human Health Institute, Alburquerque, New Mexico.

Dr. Michael Schredl, Research Assistant and Teacher, Central Institute of Mental Health, Mannheim, Germany.

References

Adams, D. (1979). *The Hitchhiker's guide to the galaxy.* London: Pan.

Agargun, M., Kara, H., & Solmaz, M. (1997). Sleep disturbances and suicidal behavior in patients with major depression. *Journal of Clinical Psychiatry, 58*(6), 249–251.

Agargun, M., Cilli, A., Kara, H., Tarhan, N., Kincir, F., & Oez, H. (1998). Repetitive and frightening dreams and suicidal behavior in patients with major depression. *Comprehensive Psychiatry, 39*(4), 198–202.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (DSM-IV)*. Washington: American Psychiatric Association.

Anders, T., & Eiben, L. (1997). Pediatric sleep disorders: A review of the past 10 years. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(1), 9–20.

Aron, A. (1996). The collective nightmares of Central American refugees. In D. Barrett (Ed.), *Trauma and dreams* (pp. 140–147). London: Harvard University Press.

Barrett, D., & Loeffler, M. (1992). The effect of depression on the manifest content of the dreams of college students. *Psychological Reports, 70*(403), 406.

Belicki, K. (1991). Limitations in the utility of lucid dreaming and dream control as techniques for treating nightmares. *Lucidity, 10*, 406–410.

Belicki, K. (1992a). Nightmare frequency versus nightmare distress: Relations to psychopathology and cognitive style. *Journal of Abnormal Psychology, 101*(3), 592–597.

Belicki, K. (1992b). The relationship of nightmare frequency to nightmare suffering with implications for treatment and research. *Dreaming: Journal of the Association for the Study of Dreams, 2*(3), 143–148.

Belicki, K. (1999). Dreams and the recovered memory debate: One clinical researcher's journey. In M. Rivera (Ed.), *Fragment by Fragment: Feminist perspectives on memory and child sexual abuse* (pp. 221–237). Charlottetown: Gynergy Books.

Belicki, K., & Cuddy, M. (1991). Nightmares: Facts, fictions and future directions. In J. Gackenback & A. Sheikh (Eds.), *Dream Images: A call to mental arms* (pp. 99–113). Farmingdale: Baywood.

Belicki, K., Chambers, E., & Ogilvie, R. (1997). Sleep quality and nightmares. *Sleep Research, 26*, 637.

Bernert, R., & Joiner, T. (2007). Sleep disturbances and suicide risk: A review of the literature. *Neuropsychiatric Disease and Treatment, 3*(6), 735–743.

Bernert, R., Joiner, T., Cukrowicz, K., Schmidt, N., & Krakow, B. (2005). Suicidality and sleep disturbances. *Sleep, 28*(9), 1135–1141.

Blanes, T., Burgess, M., Marks, I., & Gill, M. (1993). Dream anxiety disorders (nightmares): A review. *British Association for Behavioural Psychotherapy, 21*, 37–43.

Brylowski, A. (1990). Nightmares in crisis: Clinical applications of lucid dreaming techniques. *Psychiatric Journal of the University of Ottawa, 15*(2), 79–84.

Burgess, M., Gill, M., & Marks, I. (1998). Postal self-exposure treatment of recurrent nightmares. *British Journal of Psychiatry, 172*(3), 257–262.

Chambers, E., & Belicki, K. (1998). Using sleep dysfunction to explore the nature of resilience in adult survivors of childhood abuse or trauma. *Child Abuse & Neglect, 22*(8), 753–758.

Chivers, L., & Blagrove, M. (1999). Nightmare frequency, personality and acute psychopathology. *Personality & Individual Differences, 27*(5), 843–851.

Choquet, M., & Menke, H. (1990). Suicidal thoughts during early adolescence: Prevalence, associated troubles and help-seeking behavior. *Acta Psychiatrica Scandinavica, 81*(2), 170–177.

Claridge, G., Clark, K., & Davis, C. (1997). Nightmares, dreams, and schizotropy. *British Journal of Clinical Psychology, 36*, 377–386.

Claridge, G., Davis, C., Bellhouse, M., & Kaptein, S. (1998). Borderline personality, nightmares, and adverse life events in the risk for eating disorders. *Personality and Individual Differences, 25*, 339–351.

Cuddy, M., & Belicki, K. (1992). Nightmare frequency and related sleep disturbance as indicators of a history of sexual abuse. *Dreaming: Journal of the Association for the Study of Dreams, 2*(1), 15–22.

Cuddy, M., & Belicki, K. (1996). The 55 year secret. In K. Bulkeley (Ed.), *Among All These Dreamers: Essays on dreaming and modern society* (pp. 13–34). New York: State University of New York Press.

Daniels, L., & McGuire, T. (1998). Dreamcatchers: Healing traumatic nightmares using group dreamwork, sandplay and other techniques of intervention. *Group, 22*(4), 205–226.

Darves-Bornoz, J., Choquet, M., LeDoux, S., Gasquet, I., & Manfredi, R. (1998). Gender differences in symptoms of adolescents reporting sexual assault. *Social Psychiatry & Psychiatric Epidemiology, 33*(3), 111–117.

DiMario, F., & Emery, E. (1987). The natural history of night terrors. *Clinical Pediatrics, 26*(10), 505–511.

Dunn, K., & Barrett, D. (1988). Characteristics of nightmare subjects and their nightmares. *Psychiatric Journal of the University of Ottawa, 13*(2), 91–93.

Erman, M. (1987). Dream anxiety attacks (Nightmares). *Psychiatric Clinics of North America, 10*(4), 667–675.

Firth, T., Blouin, J., Natarajan, C., & Blouin, A. (1986). A comparison of the manifest content in dreams of suicidal, depressed and violent patients. *Canadian Journal of Psychiatry, 31*(1), 48–53.

Freud, S. (1900). *The interpretation of dreams* (J. Strachey, Ed. and Trans.) (pp. 160, 580). New York: Basic Books.

Garfield, P. (1996). Dreams in bereavement. In D. Barrett (Ed.), *Trauma and dreams* (pp. 186–211). London: Harvard University Press.

Giambra, L., Jung, R., & Grodsky, A. (1996). Age changes in dream recall in adulthood. *Dreaming: Journal of the Association for the Study of Dreams, 6*(1), 17–31.

Gorton, G. (1988). Life-long nightmares: An eclectic treatment approach. *American Journal of Psychotherapy, 42*(4), 610–618.

Hartmann, E. (1998). *Dreams and Nightmares: The origin and meaning of dreams* (p. 123). Cambridge, MA: Perseus Publishing.

Hearne, K. (1991). A questionnaire and personality study of nightmare sufferers. *Journal of Mental Imagery, 15*, 55–64.

Hobson, J. (1997). Dreaming as delirium: A mental status analysis of our nightly madness. *Seminars in Neurology, 17*(2), 121–128.

Johnson, D. (1987). The role of the creative arts therapies in the diagnosis and treatment of psychological trauma. *The Arts in Psychotherapy, 14*, 7–13.

Jung, C. (1960). The structure and dynamics of the psyche. In C. G. Jung & R. Hull (Eds.) (Trans.), *Dreams* (Vol. 8, p. 38). Princeton, New Jersey: Princeton University Press.

Kales, A. (1980). Nightmares: Clinical characteristics and personality patterns. *American Journal of Psychiatry, 137*(10), 1197–1201.

Kashani, J., Rosenberg, T., & Reid, J. (1989). Developmental perspectives in child and adolescent depressive symptoms in a community sample. *American Journal of Psychiatry, 146*(7), 871–875.

King, J., & Sheehan, J. (1996). The use of dreams with incest survivors. In D. Barrett (Ed.), *Trauma and dreams* (pp. 56–67). London: Harvard University Press.

Koethe, M., & Pietrowsky, R. (2001). Behavioral effects of nightmares and their correlations to personality patterns. *Dreaming, 11*(1), 43–52.

Kosky, R., Silburn, S., & Zubrick, S. (1990). Are children and adolescents who have suicidal thoughts different from those who attempt suicide? *The Journal of Nervous & Mental Diseases, 178*(1), 38–43.

Krakow, B., & Neidhardt, J. (1992). *Conquering bad dreams and nightmares: A guide to understanding, interpretation and cure* (p. 7). New York: Berkley Books.

Krakow, B., Kellner, R., Neidharat, J., Pathak, D., & Lambert, L. (1993). Imagery rehearsal treatment of chronic nightmares: With a 30 month follow-up. *Journal of Behavioral Therapy and Experimental Psychiatry, 24*(4), 325–330.

Krakow, B., Kellner, R., Pathak, D., & Lambert, L. (1995a). Imagery rehearsal treatment for chronic nightmares. *Behavioral Research Therapy, 33*(7), 837–843.

Krakow, B., Tandberg, D., Scriggins, L., & Barey, M. (1995b). A controlled comparison of self-related sleep complaints in accurate and chronic nightmare sufferers. *The Journal of Nervous & Mental Diseases, 183*(10), 623–627.

Kron, T., & Brosh, A. (2003). Can dreams during pregnancy predict postpartum depression? *Dreaming, 13*(2), 67–81.

Kroth, J., Jensen, L., & Haraldson, M. (1997). Correlations of splitting and phobic anxiety with dreaming. *Perceptual & Motor Skills, 85*, 333–334.

Kroth, J., McDavit, J., Brendlen, C., Patel, A., & Zwiener, L. (2001). Risk-taking, death anxiety, and dreaming. *Psychological Reports, 88*(2), 514–516.

Levin, R. (1994). Sleep and dreaming characteristics of frequent nightmare subjects in a university population. *Dreaming: Journal of the Association for the Study of Dreams, 4*(2), 127–137.

Levin, R., & Fireman, G. (2002). Nightmare prevalence, nightmare distress, and self-reported psychological disturbance. *Sleep, 25*(2), 205–212.

Levin, R., & Hurvich, M. (1995). Nightmares and annihilation anxiety. *Psychoanalytic Psychology, 12*(2), 247–258.

Liakopoulou, M., Alifieraki, T., Katideniou, A., Tselalidou, E., Tsiantis, J., & Stratigos, J. (1997). Children with alopecia areata: Psychiatric symptomatology and life events. *Journal of the American Academy of Child & Adolescent Psychiatry, 36*(5), 678–684.

Linden, J., Bhardwaj, A., & Anbar, R. (2006). Hypnotically enhanced dreaming to achieve symptom reduction: A case study of 11 children and adolescents. *American Journal of Clinical Hypnosis, 48*(4), 279–289.

Lumley, M., & Melamed, B. (1992). Blood phobics and nonphobics: psychological differences and affect during exposure. *Behaviour Research & Therapy, 30*(5), 425–434.

Mack, J. (1974). *Nightmares and human conflict* (pp. 3, 12, 17, 25–26, 59, 111–115, 147). Boston: Little Brown.

Madrid, S., Marquez, H., Nguyen, T., & Hicks, R. A. (1999). Nightmare distress and stress-related health problems. *Perceptual & Motor Skills, 89*(1), 114–115.

Mahendran, R., Subramaniam, M., Cal, Y., & Chan, Y. (2006). Survey of sleep problems amongst Singapore children in a psychiatric setting. *Social Psychiatry and Psychiatric Epidemiology, 41*(8), 669–673.

Marks, I. (1978). Rehearsal relief of a nightmare. *British Journal of Psychiatry, 133*, 461–465.

Miller, W., & DiPilato, M. (1983). Treatment of nightmares via relaxation and desensitization: A controlled evaluation. *Journal of Consulting & Clinical Psychology, 51*(6), 870–877.

Mindell, J., & Barrett, K. (2002). Nightmares and anxiety in elementary-aged children: is there a relationship? *Child: Care, Health & Development, 28*(4), 317–322.

Morrison, D., McGee, R., & Stanton, W. (1992). Sleep problems in adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry, 31*, 94–99.

Muller, K. (1996). Jasmine: Dreams in the psychotherapy of a rape survivor. In D. Barrett (Ed.), *Trauma and Dreams* (pp. 148–158). London: Harvard University Press.

Murray, J. (1990). Psychophysiological aspects of nightmares, night terrors, and sleepwalking. *The Journal of General Psychology, 118*(2), 113–127.

Nielsen, T., & Levin, R. (2007). Nightmares: A new neurocognitive model. *Sleep Medicine Reviews, 11*(4), 295–310.

Nielsen, T., Laberge, L., Paquet, J., Tremblay, R., Vitaro, F., & Montplaisir, J. (2000). Development of disturbing dreams during adolescence and their relation to anxiety symptoms. *Sleep, 23*(6), 727–736.

Nielsen, T., Stenstrom, P., & Levin, R. (2006). Nightmare frequency as a function of age, gender, and September 11, 2001: Findings from an internet questionnaire. *Dreaming: Journal of the Association for the Study of Dreams, 16*(3), 145–158.

O'Malley, P., & Bachman, J. (1983). Self-esteem: Change and stability between ages 13 and 23. *Developmental Psychology, 19*(2), 257–268.

Picchioni, D., Goeltzenleucher, B., Green, D., Convento, M., Crittenden, R., Hallgren, M., & Hicks, R. (2002). Nightmares as a coping mechanism for stress. *Dreaming, 12*(3), 155–169.

Revonsuo, A. (2000). The reinterpretation of dreams: An evolutionary hypothesis of the function of dreaming. *Behavioral and Brain Sciences, 23*(6), 877–901.

Robbins, D., & Alessi, N. (1985). Depressive symptoms and suicidal behaviour in adolescents. *American Journal of Psychiatry, 142*(5), 588–592.

Roberts, J., & Lennings, C. (2006). Personality, psychopathology, and nightmares in young people. *Personality & Individual Differences, 41*(4), 733–744.

Roberts, J., Lennings, C., & Heard, R. (2009). Nightmares, life stress, and anxiety: An examination of tension reduction. *Dreaming: Journal of the Association for the Study of Dreams, 19*(1), 17–29.

Sadeh, A., McGuire, J., Sachs, H., Seifer, R., Tremblay, A., Civita, R., et al. (1995). Sleep and psychological characteristics of children on a psychiatric inpatient unit. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*(6), 813–819.

Saisto, T., & Halmesmaki, E. (2003). Fear of childbirth: a neglected dilemma. *Acta Obstetricia et Gynecologica Scandinavica, 82*(3), 201–208.

Schredl, M. (2000). Gender differences in dream recall. *Journal of Mental Imagery, 24*, 169–176.

Schredl, M., Biemelt, J., Roos, K., Dunkel, T., & Harris, N. (2008). Nightmares and stress in children. *Sleep and Hypnosis, 10*(1), 19–25.

Shaffer, D., Gould, M., Fisher, P., Trautman, P., Moreau, D., Kleinman, M., et al. (1996). Psychiatric diagnosis in child and adolescent suicide. *Archives of General Psychiatry, 53*(4), 339–348.

Shapiro, R. (1987). Psychoanalytic perspectives on anxiety dreams in adults and children. In H. Kellerman (Ed.), *The Nightmare: Psychological and biological foundations* (p. 157). New York: Columbia University Press.

Sher, L. (2008). Sleep disturbances, synaptic homeostasis and suicidal behaviour. *Australian and New Zealand Journal of Psychiatry, 42*(12), 1070–1071.

Singareddy, R., & Balon, R. (2001). Sleep and suicide in psychiatric patients. *Annals of Clinical Psychiatry, 13*(2), 93–101.

Sjostrom, N., Waern, M., & Hetta, J. (2007). Nightmares and sleep disturbances in relation to suicidality in suicide attempters. *Sleep: Journal of Sleep Research and Sleep Medicine, 30*(1), 19–95.

Starker, S. (1984). Daydreams, nightmares, and insomnia: the relation of waking fantasy to sleep disturbance. *Imagination, Cognition & Personality, 4*(3), 237–248.

Stern, M., & Zevon, M. (1990). Stress, coping, and family environment: The adolescent's response to naturally occurring stressors. *Journal of Adolescent Research, 5*(3), 290–305.

Stores, G. (1996). Practitioner review: Assessment and treatment of sleep disorders in children and adolescents. *Journal of Child Psychology & Psychiatry, 37*(8), 907–925.

Tan, V., & Hicks, R. (1995). Type A-B behavior and nightmare types among college students. *Perceptual & Motor Skills, 81*, 15–19.

Tanskanen, A., Tuomilehto, J., Viinamaki, H., Vartiainen, E., Lehtonen, J., & Puska, P. (2001). Nightmares as predictors of suicide. *Sleep, 24*(7), 844–847.

Vogel, G., Buffenstein, A., Mintar, K., & Hennessey, A. (1989). Drug effects on REM sleep and on endogenous depression. *Neuroscience & Biobehavioral Reviews, 14*, 49–63.

Wood, J., & Bootzin, R. (1990). The prevalence of nightmares and their independence from anxiety. *Journal of Abnormal Psychology, 99*(1), 64–68.

Xianchen, L. (2004). Sleep and adolescent suicidal behavior. *Sleep: Journal of Sleep and Sleep Disorders Research, 27*(7), 1351–1358.

Xianchen, L., & Buysse, D. (2006). Sleep and youth suicidal behavior: A neglected field. *Current Opinion in Psychiatry, 19*(3), 288–293.

Yu, C. (2008). Dream Intensity Inventory and Chinese people's dream experience frequencies. *Dreaming: Journal of the Association for the Study of Dreams, 18*(2), 94–111.

Zadra, A., & Donderi, D. (2000). Nightmares and bad dreams: Their prevalence and relationship to well-being. *Journal of Abnormal Psychology, 109*(2), 273–281.

Zadra, A., & Pihl, R. (1997). Lucid dreaming as a treatment for recurrent nightmares. *Psychotherapy & Psychosomatics, 66*, 50–55.

No Child Left Behind Act

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

In 2001, the *No Child Left Behind Act* (NCLB) (2001) reauthorized the *Elementary and Secondary Education Act of 1965* (ESEA). The Act emphasizes the "four pillars" for education reform: accountability, use of science-based programs, parental and community involvement, and local decision making (US Department of Education 2002). The Act sought to foster those areas of reform by using federal support for elementary and secondary education; by doing so, it sought to ensure that every student achieved academic success. Under the NCLB, for example, schools and students are required to make adequate yearly progress, which is indexed by a set of standards measured by state-specified academic proficiency exams. In addition to the need to test all students yearly and report their scores (by income, race, and other special-needs categories), the law mandates states to hire "highly qualified teachers" in the classroom and grants local and state agencies substantial authority over failing schools. Each state's progress is then linked to a nationally specified rate of progress on state tests, which inevitably has the result of having the federal requirements shape both the curriculum and instruction in classrooms. The Act also calls for a set of corrective actions when districts and schools fail to make adequate yearly progress. The corrective actions can include allowing school or district takeovers by the state, permitting students to transfer to another public or charter school, and implementing educational or tutorial services. At its core, the new direction highlights a more general move in how the federal government embraces performance measures in an effort to close achievement gaps and move states toward desired directions.

The Act was passed in the context of perceived increased global economic competition coupled with decreasing levels of performance by American students in comparison to their international counterparts. That perception roots back to the 1980s and a series of reports noting that the nation was at risk for losing its stature and competitive edge in commerce,

industry, science, and technological innovation (see Barrett 2009). The momentum was initiated by the publication of *A Nation at Risk* (National Commission on Excellence in Education 1983), a report that sounded alarms about the country's future prosperity and called for improved standards. That report and those that ensued placed education at the center of the nation's competitiveness, especially its economic competition.

Since its passage, the Act has been a source of continued controversy. Not the least among these controversies was the budgetary crises facing schools and the practical challenges they faced, for example, in supporting annual testing, having the capacity to provide technical assistance to underperforming schools, and hiring highly qualified teachers (see Wong 2008). The major source of controversy, however, continues to center on the law's far-reaching requirements that have expanded the role of the federal government in the areas once reserved for states. Traditionally, states would determine the curricular content standards for publicly funded schools, set the qualification standards for all teachers, design assessment regimens that apply to all public school students, and implement accountability measures for schools with students who fail to demonstrate proficiency against those standards. Although states still retain considerable control over these aspects of public education, the federal government sought to increase standards and devise ways to ensure that those standards were being met. That overall move has been conceptualized as a move toward a "performance" model that emphasizes standards, accountability, and marketization, which several commentators have conceived as an assault on the teaching profession, one that deeply affects the practice of teaching and teachers' identities in that they focus less on student-initiated learning and more on teachers' teaching to high-stakes standardized tests that have their results made public (Barrett 2009; Beck and Young 2005). Although the influence of the NCLB on teaching can be felt in many ways, researchers have focused on how the primary embedded value within the Act privileges quantitative science over other methods of inquiry and assessment (Duffy et al. 2008), which has important implications for students' educations. Given the thrust of the new mandates, and the challenges they face, controversies are likely to continue and deeply influence adolescents.

References

Barrett, B. D. (2009). *No Child Left Behind* and the assault on teachers' professional practices and identities. *Teaching and Teacher Education, 25*, 1018–1025.

Beck, J., & Young, M. F. D. (2005). The assault on the professions and the restructuring of academic and professional identities: A Bernsteinian analysis. *British Journal of Sociology of Education, 26*, 183–197.

Duffy, M., Giordano, V. A., Farrell, J. B., Paneque, O. M., & Crump, G. B. (2008). No child left behind: Values and research issues in high-stakes assessments. *Counseling and Values, 53*, 53–66.

National Commission on Excellence in Education. (1983). *A nation at risk: A report to the nation and the Secretary of Education.* Washington, DC: US Department of Education.

No Child Left Behind Act of 2001. (2001). P.L.107-110, 115 stat. 1425.

US Department of Education. (2002). What to know and where to go: A parents' guide to No Child Left Behind.

Wong, K. K. (2008). Federalism revised: The promise and challenge of the *No Child Left Behind Act. Public Administration Review, 68*, S175–S185.

Nomothetic and Ideographic

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

Nomothetic and ideographic, in the study of adolescence, refer to two different orientations to seeking knowledge and reaching conclusions. Nomothetic approaches seek to identify general laws and refer to generating general laws derived from observations of many cases, such as cohorts. Ideographic approaches are concerned with individual cases and focus on complete, in-depth studies. Typically, nomothetic approaches adopt quantitative approaches, while idiographic approaches are qualitative. The approaches have different strengths, and are particularly strong when used together. A leading example of the use of both methods comes from the study of transitions and turning points. Nomothetic approaches have helped to identify several key transitions, such as the transition to a junior or senior high school (which is known as potentially disruptive), and the significance of the change for the average individual, and whether the magnitude of the average change is more substantial at one transition point than at another. Ideographic approaches have helped identify for whom the

transitions are most significant, such as for whom the transition poses a risk or an opportunity. In the study of adolescence, these broad and individual analyses have been viewed as particularly helpful in identifying areas for intervention and then determining the nature of the intervention itself (see Seidman and French 2004).

References

Seidman, E., & French, S. E. (2004). Developmental trajectories and ecological transitions: A two-step procedure to aid in the choice of prevention and promotion interventions. *Developmental Psychopathology, 16*, 1141–1159.

Nonparental Adults

Carrie W. Rishel
Division of Social Work, West Virginia University, Morgantown, WV, USA

Overview

Supportive relationships with non-parental adults play an important role in adolescents' lives and are recognized as a protective factor in adolescent development. Although less well studied than other recognized protective factors, supportive relationships with non-parental adults have been associated with positive adolescent outcomes. Numerous scholars utilizing various methods to study adolescents' relationships with non-parental adults consistently demonstrate that these adults play a positive and influential role in the lives of youth. Mentoring is currently the only well-studied formal intervention method that provides a context for the development of adolescents' relationships with non-parental adults. Current knowledge of the potential value of these relationships, however, supports further investment into the development of applied interventions that effectively promote youth's relationships with non-parental adults.

Theoretical Considerations

The study of non-parental adults in the lives of adolescents stems from the ecological risk and protective factor framework. This framework guides researchers in integrating the concepts of risk and protection with components of ecological theory when studying youth development (Bogenschneider 1996; Murry et al. 2001). The ecological systems perspective has long been used as a framework for understanding an individual's development within the context of his or her environment. That a person and his or her environment are inseparable and must be considered jointly is a basic assumption of the ecological systems perspective. Bronfenbrenner (1979), one of the most well-known contributors to the ecological tradition, defines the environment as including immediate settings, interconnections between immediate settings, and the larger surroundings. It is only by taking into consideration all levels of an adolescent's environment that a complete understanding of development can be achieved.

For several decades, researchers have integrated the concepts of risk and protection with the ecological model to help explain the ability of some adolescents to avoid negative outcomes despite the existence of various stressors, or risk factors, in their lives. Risk factors have been defined as circumstances in adolescents' lives that increase the likelihood of negative outcomes (Durlak 1998; Smith and Carlson 1997), while protective factors refer to circumstances that decrease the likelihood of negative outcomes (Durlak 1998). Both risk and protective factors are typically categorized into three groups: individual factors, family factors, and environmental factors. The study of non-parental adults in the lives of adolescents focuses on environmental-level protective factors, namely, external support systems that encourage an adolescent's coping efforts (Garmezy 1985).

Many discuss the concepts of risk and protection under the overarching theory of resilience (Luthar and Zigler 1991; Rak and Patterson 1996; Rutter 1987, 1993). Resilience is defined as the ability to withstand and overcome disruptive life challenges. Resiliency theory suggests that protective factors may act as buffers, protecting an adolescent from the full impact of certain risk factors. Methodologically, the term "buffer" specifically implies moderation. When protective factors serve also as "buffers," they moderate or change the relationship between a specific risk factor and adolescent outcomes (Jessor et al. 1995). Recent studies exploring adolescents' relationships with non-parental adults have examined whether or not these relationships do, indeed, serve to buffer the effects of specific

risk factors in adolescent development (Rishel et al. 2010; Ryska and Zenong 2000).

Another term used to refer to protective factors is "assets." The Search Institute's work in identifying the "40 developmental assets" highlights the benefits of protective factors, or assets, to adolescent development, even in the absence of risk. Relationships with non-parental adults, or "Other Adult Relationships," are considered 1 of the 20 external assets within the developmental assets framework (Scales 1999). The developmental assets framework is distinguished from the risk and protective factor framework by its emphasis on positive "building blocks" in adolescents' lives. Rather than focus on protective factors as potential buffers of risk, the assets framework emphasizes the positive benefits of assets for *all* adolescents, regardless of risk.

Measurement

Investigators have used various techniques to explore the role of non-parental adults in the lives of adolescents. For example, Garbarino and colleagues (1978) used social mapping to identify the top ten people youth knew best outside their immediate family, and then explored youths' relationships with these "top ten" in more detail. This social mapping study was used to explore the characteristics of youth's social networks as they transitioned from elementary to junior high school. A few years later, Blyth et al. (1982) developed the Social Relations Questionnaire, a survey asking youth to list their "significant others" and then respond to a set of questions regarding each significant other listed. This approach differed from that of Garbarino and colleagues (1978) in that the list size of significant others in adolescents' lives was not restricted to the "top ten." Instead, participants were asked to list *all* important people in their lives. A somewhat similar measure, the Social Support Functions Inventory (SSFI), was later developed (Munsch and Blyth 1993) that measures various dimensions of social support from parents, non-parental adults, and peers. The SSFI is a more detailed assessment instrument than the ones formerly developed in that it measures eight specific dimensions of social support and, thus, allows researchers to examine differences in the types and levels of support provided by different categories of significant others in adolescents' lives (Munsch and Blyth 1993). All three measurement strategies described above (social mapping, the Social Relations Questionnaire, and the SSFI) include exploration of adolescents' peer relationships, and in some cases parental support, as well as relationships with non-parental adults.

Primarily qualitative measures, namely intensive interviews, have also been used to examine adolescents' relationships with non-parental adults. In one of the best-known studies of resiliency, repeated interviews and observations over a 32-year period allowed researchers to identify common protective buffers in the lives of resilient youth (Werner 1992; 1995). Researchers have also utilized retrospective interviewing techniques by asking university students to recall the characteristics of significant non-parental adults in their lives during their childhood and adolescence (Galbo and Demetrulias 1996). An additional strategy has involved asking adolescents to identify one particular significant adult or natural mentor, and then exploring that particular relationship in detail (Beam et al. 2002; Greenberger et al. 1998; Zimmerman et al. 2002).

More recently, a new instrument to measure adolescents' relationships with non-parental adults has been developed, the Non-Parental Adult Inventory (N.P.A.I.; Rishel et al. 2007). The N.P.A.I. was designed to measure the frequency and quality of contact youth have with a broad range of non-parental adults. The two-dimensional scale asks youth and/or their parents to report how much contact the adolescent has across 13 categories of non-parental adults, and secondly, how much the adolescent "enjoys" this contact. A weighted variable of frequency x enjoyment is calculated in order to create one number representing "relationships with non-parental adults." This weighted number accounts for both the amount of contact an adolescent has with a broad range of non-parental adults, and the adolescent's enjoyment (or positive nature) of this contact (Rishel et al. 2005). The N.P.A.I. is differentiated from previous methods of measurement by the ability to capture both the frequency and quality of contact across a wide range of non-parental adults into one number that represents the strength of an adolescent's relationships with non-parental adults. The capability of quantifying adolescents' relationships with non-parental adults offers numerous opportunities for future multivariate studies. The summary number reached by the N.P.A.I. could be easily used in multivariate analyses examining factors related to adolescent

development. The N.P.A.I. could also be used in clinical settings to assist service providers in assessing adolescents' relationships with non-parental adults as a potential protective factor or asset in adolescents' lives (Rishel et al. 2007).

The Nature of Adolescents' Relationships with Non-Parental Adults

Regardless of method of study, research demonstrates that non-parental adults play an important role in the lives of adolescents. Studies utilizing adolescent self-report have found that adolescents perceive non-parental adults to be important influences in their lives (Blyth et al. 1982; Galbo and Demetrulias 1996; Hendry et al. 1992; Munsch and Blyth 1993). Adolescents report both extended family members and unrelated adults as significant non-parental adults. In one of the most extensive studies examining adolescent perception of significant persons in their lives, Blyth et al. (1982) report that over 75% of a sample of almost 2,500 adolescents listed at least one extended family member as a significant non-parental adult, while over 60% listed at least one unrelated adult. In more recent work, 82% of a sample of 243 adolescents reported having an important non-parental adult in their life (Beam et al. 2002). Beam et al. (2002) conclude that the formation of significant relationships with non-parental adults is a normative part of adolescent development, rather than something that occurs only in response to problematic circumstances an adolescent may be facing.

A recent study asked adolescents to report their frequency of contact with specific categories of non-parental adults on the N.P.A.I. Results demonstrated that, on average, adolescents reported the most contact overall with a favorite teacher. Adolescents also reported relatively frequent contact (once a week or more) with a grandmother, adult friend of the family, a friend's parent, an aunt, and an adult neighbor. Adolescent contact with an uncle, grandfather, athletic coach, youth pastor or other religious leader, and adult cousin occurred more than once a month. Finally, adolescents reported the least contact (less than once a month) with a club or music leader and a counselor (Rishel et al. 2007).

When asked to report level of "enjoyment" of this contact for each category of non-parental adults, adolescents reported the most enjoyment ("quite a bit") from contact with their grandmother, a favorite teacher, and aunt. Adolescents reported enjoying contact with their grandfather, an adult friend of the family, an adult cousin, their uncle, and a friend's parent between "a fair amount" and "quite a bit." Finally, adolescents reported enjoying contact with a youth pastor or other religious leader, an athletic coach, a club or music leader, and adult neighbor, and a counselor between "a little" and "a fair amount" (Rishel et al. 2007).

In addition to enjoying contact with non-parental adults, adolescents perceive these significant adults to serve many important functions in their lives. In a study examining the role of non-parental adults in adolescent development, Chen et al. (2003) report that American adolescents were most likely to note general support, support for relationships, fun, and companionship as main functions of the significant non-parental adults in their lives. Beam et al. (2002) also note that adolescents reported high levels of overall support provided by those they listed as significant non-parental adults.

The Impact of Non-Parental Adults in the Lives of Adolescents

Of those who study adolescents' relationships with non-parental adults, many are most interested in the *impact* these relationships have on adolescent development. Resiliency theory and the risk and protective factor framework suggest that the more protective factors present in an adolescent's life, the more likely he or she is to achieve positive developmental outcomes. Therefore, it follows that strong relationships with non-parental adults should have a positive impact on adolescent development. This hypothesis has been supported by evidence that non-parental adults play a protective role in the lives of adolescents. Perhaps the strongest evidence of the protective impact of these relationships is found in results from a 32 year longitudinal study of a cohort of children born in Kauai in the year 1955. Results from this study demonstrate that adolescents who form strong relationships with non-parental adults are more likely to achieve positive developmental outcomes than those who do not (Werner 1992; 1995). Garmezy (1985) also suggests that youth who form supportive relationships with non-parental adults tend to cope with hardship better than youth who do not form these types of relationships.

These findings have been replicated by other researchers, as reported in a review of empirical studies that notes that a relationship with at least one caring adult may be the single most important protective element in the lives of youth who experience multiple risk factors (Scales and Gibbons 1996). More specifically, results reported by Greenberger and colleagues (1998) note that adolescents who report a relationship with a "very important" non-parental adult are less likely than other adolescents to engage in potentially risky behaviors. Adolescents who experience supportive relationships with non-parental adults are also less likely to exhibit behavior problems than other adolescents (Rishel et al. 2005; Zimmerman et al. 2002).

Several authors have suggested that support from non-parental adults may act as a buffer, protecting an adolescent from the full impact of certain risk factors (Rutter 1987; Smokowski 1998; Werner 1992). One recent test of this buffering hypothesis found that adolescents' relationships with non-parental adults served as a buffer in the relationship between parent-adolescent communication and adolescent risk behavior. Specifically, adolescents who reported strong relationships with non-parental adults were less likely to be negatively impacted by poor communication with their parents than other adolescents (Rishel et al. 2010). In this case, strong relationships with non-parental adults "buffered" or protected adolescents from the full impact of the risk factor of poor parent-adolescent communication. While other specific tests of the buffering hypothesis have not been reported, hopefully future work will examine the buffering hypothesis in relation to other specific risk factors and adolescent outcomes (Rishel et al. 2010).

Group Differences in Adolescents' Relationships with Non-Parental Adults

Gender Differences

Several studies exploring adolescents' relationships with non-parental adults have found that girls are more likely to list female adults as "very important persons" or significant adults in their lives while boys are more likely to list male adults (Galbo and Demetrulias 1996; Greenberger et al. 1998). On average, adolescent girls also list larger numbers of non-parental adults as part of their social networks than do boys (Blyth et al. 1982). When asked about enjoyment of contact within specific categories of non-parental adults in a recent study, adolescent girls reported significantly more enjoyment from contact with an aunt, adult cousin, and a friend's parent, while boys reported significantly more enjoyment from contact with an adult neighbor. Within the more "formal" categories of non-parental adults (such as club leader, youth pastor, athletic coach, and teacher), however, there were no significant differences in reported enjoyment of contact between adolescent boys and girls. The authors speculate that perhaps these adults, who have specified roles to play in the lives of adolescents, consciously strive to develop equally strong relationships with the boys and girls with whom they have contact (Rishel et al. 2007).

Racial and Ethnic Differences

Very few studies have examined racial and ethnic differences in adolescents' relationships with non-parental adults. In summarizing work examining social networks of African-American adolescents, Scales and Gibbons (1996) note that African-American adolescents appear to prefer relying on extended family members for support as opposed to non-related adults. Similar to patterns found when examining gender differences, one study found that university students who identified as racial or ethnic minorities were more likely to recall minority non-parental adults as significant in their adolescent years while Caucasian students were more likely to recall Caucasian non-parental adults as significant (Galbo and Demetrulias 1996).

Age Differences

Knowledge regarding age differences among adolescents' relationships with non-parental adults is sparse. Scales and Gibbons (1996) note in their review that several studies have found older adolescents report more relationships with non-parental adults than do younger adolescents. However, this finding has not been consistently replicated across multiple studies. Blyth and colleagues (1982) report no age differences among adolescents in the number of relationships with non-related adults, but found relationships with extended family members appeared to decrease as adolescents aged. As many adolescents report teachers as important non-parental adults in their lives (Rishel et al. 2007), it is interesting to note that a review by Galbo (1984) found that younger adolescents viewed

teachers as more influential in their lives than did older adolescents. Finally, in a recent study with a relatively large sample size of over 500 adolescents, Rishel and colleagues (2007) note that age had little to no effect on adolescents' report of their relationships with non-parental adults.

Differences in Adolescent and Parent Report

Only one study to date has examined differences in adolescent and parent report of youth's relationships with non-parental adults. Results reported by Rishel et al. (2007) demonstrate important differences between adolescent and parent perception of youth's relationships with non-parental adults. Specifically, adolescents reported significantly more contact and more enjoyment of contact with related adults than their parents perceived. On the other hand, parents perceived their adolescents to have significantly more frequent and more enjoyment of contact with non-related adults than their adolescents reported. Based on these results, the authors suggest that parents may be underestimating the impact of extended family members in their adolescents' lives, but overestimating the positive nature of their adolescents' relationships with non-parental adults in more formal roles (such as teacher, coach, and club leader). The authors offer several possible interpretations, but conclude that more research is needed to better understand parents' and adolescents' differing perceptions of youth relationships with non-parental adults (Rishel et al. 2007).

Implications for Practice

As summarized above, research studies consistently demonstrate that non-parental adults play a positive and influential role in the lives of youth. Practitioners and policy-makers should, therefore, be proactive in their efforts to incorporate this knowledge into intervention efforts with adolescents. For example, practitioners who work directly with adolescents should take inventory of these relationships as part of a formal assessment process. This would allow for the encouragement of further development of these relationships during the intervention stage. Increasing adolescents' supportive relationships with non-parental adults could involve both the addition of new adults into adolescents' social networks (through the use of mentoring and other similar programs) and help to strengthen adolescents' relationship with adults who are already part of their social networks (such as facilitating closer involvement with extended family members; Rishel et al. 2005).

Policy-makers must also play a role by supporting mentoring and other similar programs that provide a context for the development of relationships between adolescents and non-parental adults (Rishel et al. 2010). Review of the literature reveals that mentoring may be the only specific type of intervention utilizing non-parental adults that has been well studied in terms of impact on adolescent development. A recent meta-analysis of 55 studies of mentoring found that there exists strongest empirical support for the use of mentoring programs as preventive interventions for adolescents with multiple environmental risk factors (DuBois et al. 2002). The authors conclude that their results support continued development, implementation, and dissemination of mentoring programs for adolescents (DuBois et al. 2002).

An additional potential strategy for strengthening adolescents' relationships with non-parental adults is to encourage positive relationships with extended family members, especially grandparents. Recent work indicates that contact with grandparents is highly valued by adolescents, but less frequent than contact with several other categories of adults. Therefore, encouraging more frequent contact with grandparents may strengthen adolescents' experience of supportive relationships with non-parental adults (Rishel et al. 2005). Even stronger evidence of the potential impact of grandparents on the lives of adolescents comes from another study that found grandparents acted as significant individual buffers in the relationship between parent-adolescent communication and adolescent risk behavior. That is, adolescents who reported a strong relationship with a grandparent were less likely to be negatively impacted by poor communication with their parents than were other adolescents (Rishel et al. 2010). The above findings support previous work suggesting that adolescents perceive grandparents as important influences in their lives (Galbo and Demetrulias 1996).

Teachers are another category of non-parental adults that appear to have an important impact on adolescents. Although they are more distant from the family than are extended family members, the quantity of time spent with adolescents and their influence in their lives are substantial (Rishel et al. 2007).

These findings highlight the importance of quality in teaching, reinforcing the need to implement policy and practice that fosters the development of high-quality relationships between adolescents and their teachers (Rishel et al. 2005).

Future Directions

Although we now know much more than we did in the past about the important role of non-parental adults in the lives of adolescents, there is still much to learn. Of the recognized protective factors, the impact of non-parental adults on youth development has received comparably little attention (Wolkow and Ferguson 2001). Larger studies including more diverse groups are needed to better understand the nature and impact of adolescents' relationships with non-parental adults among different populations of youth (Rishel et al. 2005). Just as importantly, future intervention and dissemination research is needed to develop and disseminate applied interventions that effectively promote supportive relationships between adolescents' and non-parental adults. As mentioned previously, mentoring is the only formal intervention utilizing non-parental adults in the lives of adolescents that has been well studied. Nevertheless, authors of a meta-analysis of mentoring programs note the need for further study and innovation of mentoring interventions (DuBois et al. 2002). Future study of other potential interventions that focus on encouraging positive adolescent relationships with grandparents, teachers, and other influential non-parental adults is also needed. Research exploring the role of non-parental adults in the lives of adolescents has added much more specificity to the common saying, "it takes a village to raise a child." Indeed, the available evidence provides credibility to this saying by suggesting that supportive relationships with non-parental adults are positively associated with healthy adolescent development. Further work is needed before we fully understand how to best apply this knowledge to develop and implement effective preventive and treatment interventions that utilize relationships with non-parental adults in the lives of adolescents.

References

Beam, M. B., Chen, C., & Greenberger, E. (2002). The nature of adolescents' relationships with their "very important" nonparental adults. *American Journal of Community Psychology, 30*, 305–325.

Blyth, D. A., Hill, J. P., & Thiel, K. S. (1982). Early adolescents' significant others: Grade and gender differences in perceived relationships with familial and nonfamilial adults and young people. *Journal of Youth and Adolescence, 11*, 425–450.

Bogenschneider, K. (1996). An ecological risk/protective theory for building prevention programs, policies, and community capacity to support youth. *Family Relations, 45*, 127–138.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge: Harvard University Press.

Chen, C., Greenberger, E., Farruggia, S., Bush, K., & Dong, Q. (2003). Beyond parents and peers: The role of important non-parental adults (VIPS) in adolescent development in China and the United States. *Psychology in the Schools, 40*, 35–50.

DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*, 157–197.

Durlak, J. A. (1998). Common risk and protective factors in successful prevention programs. *The American Journal of Orthopsychiatry, 68*, 512–520.

Galbo J. J. (1984). Adolescents' perceptions of significant adults: A review of the literature. *Adolescence, XIX*, 951–970.

Galbo, J. J., & Demetrulias, D. M. (1996). Recollections of nonparental significant adults during childhood and adolescence. *Youth and Society, 27*, 403–420.

Garbarino, J., Burston, N., Raber, S., Russell, R., & Crouter, A. (1978). The social maps of children approaching adolescence: Studying the ecology of youth development. *Journal of Youth and Adolescence, 7*, 417–428.

Garmezy, N. (1985). Stress resilient children: The search for protective factors. In J. E. Stevenson (Ed.), *Recent research in developmental psychology: Journal of child psychology and psychiatry book* (pp. 213–233). Oxford: Pergamon.

Greenberger, E., Chen, C., & Beam, M. R. (1998). The role of "very important" nonparental adults in adolescent development. *Journal of Youth and Adolescence, 27*, 321–343.

Hendry, L. B., Roberts, W., Glendinning, A., & Coleman, J. C. (1992). Adolescents' perceptions of significant individuals in their lives. *Journal of Adolescence, 15*, 255–270.

Jessor, R., Van Den Bos, J., Vanderryn, J., Costa, F. M., & Turbin, M. S. (1995). Protective factors in adolescent problem behavior: Moderator effects and developmental change. *Developmental Psychology, 31*, 923–933.

Luthar, S. S., & Zigler, E. (1991). Vulnerability and competence: A review of research on resilience in childhood. *The American Journal of Orthopsychiatry, 61*, 6–22.

Munsch, J., & Blyth, D. A. (1993). An analysis of the functional nature of adolescents' supportive relationships. *Journal of Early Adolescence, 13*, 132–153.

Murry, V. M., Bynum, M. S., Brody, G. H., Willert, A., & Stephens, D. (2001). African American single mothers and children in context: A review of studies on risk and resilience. *Clinical Child and Family Psychology Review, 4*, 133–155.

Rak, C. F., & Patterson, L. E. (1996). Promoting resilience in at-risk children. *Journal of Counseling and Development, 74*, 368–373.

Rishel, C. W., Sales, E., & Koeske, G. F. (2005). Relationships with non-parental adults and child behavior. *Child and Adolescent Social Work Journal, 22*, 19–34.

Rishel, C. W., Cottrell, L., Cottrell, S. A., Stanton, B. F., Gibson, C. A., & Bougher, K. (2007). Exploring adolescents' relationships with non-parental adults using the non-parental adult inventory (N.P.A.I.). *Child and Adolescent Social Work Journal, 24*, 495–508.

Rishel, C. W., Cottrell, L., Stanton, B., Cottrell, S., & Branstetter, S. (2010). The buffering effect of non-parental adults in the relationship between parent-adolescent communication and adolescent risk behavior. *Families in Society, 91*, 371–377.

Rutter, M. (1987). Psychological resilience and protective mechanisms. *The American Journal of Orthopsychiatry, 57*, 316–331.

Rutter, M. (1993). Resilience: Some conceptual considerations. *The Journal of Adolescent Health, 14*, 626–631.

Ryska, T. A., & Zenong, Y. (2000). Testing the buffering hypothesis: Perceptions of coach support and pre-competitive anxiety among male and female high school athletes. *Current Psychology, 18*, 381–393.

Scales, P. C. (1999). Reducing risks and building developmental assets: Essential actions for promoting adolescent health. *The Journal of School Health, 69*, 113–119.

Scales, P. C., & Gibbons, J. L. (1996). Extended family members and unrelated adults in the lives of young adolescents: A research agenda. *Journal of Early Adolescence, 16*, 365–389.

Smith, C., & Carlson, B. E. (1997). Stress, coping, and resilience in children and youth. *The Social Service Review, 72*, 231–256.

Smokowski, P. R. (1998). Prevention and intervention strategies for promoting resilience in disadvantaged children. *The Social Service Review, 72*, 337–364.

Werner, E. E. (1992). The children of Kauai: Resiliency and recovery in adolescence and adulthood. *The Journal of Adolescent Health, 13*, 262–268.

Werner, E. E. (1995). Resilience in development. *Current Directions in Psychological Science, 4*, 81–85.

Wolkow, K. E., & Ferguson, H. B. (2001). Community factors in the development of resiliency: Considerations and future directions. *Community Mental Health Journal, 37*, 489–498.

Zimmerman, M. A., Bingenheimer, J. B., & Notaro, P. C. (2002). Natural mentors and adolescent resiliency: A study with urban youth. *American Journal of Community Psychology, 30*, 221–243.

Non-suicidal Self-injury

Jennifer J. Muehlenkamp
Department of Psychology, University of Wisconsin-Eau Claire, Eau Claire, WI, USA

Overview

Non-suicidal self-injury (NSSI), the intentional destruction of body tissue without suicidal intent, has been referred to as the new epidemic among youth. NSSI is a behavior that appears to emerge primarily during adolescence, leading some experts to wonder if NSSI is triggered by difficulties mastering key developmental tasks. Researchers and clinicians have focused efforts on understanding the primary characteristics and associated psychiatric disorders of NSSI, leading to a recent proposal for a NSSI disorder to be included in the next edition of the diagnostic and statistical manual of mental disorders. Despite pushes to identify a NSSI disorder, there remain a number of issues to be resolved and questions about NSSI that have yet to be answered. This essay provides a general overview of what is known about NSSI in adolescents including common NSSI behaviors and its prevalence, a discussion of psychiatric comorbidity and diagnostic issues, identification of potential causes for NSSI, and some brief comments on the assessment, treatment, and prevention of this behavior. In sum, research shows that NSSI is a growing problem among adolescents, that it is influenced and maintained by multiple factors, and there is great need to further understand this behavior so appropriate prevention and intervention programs can be designed.

Description of NSSI

Non-suicidal self-injury (NSSI) is commonly recognized as representing behaviors that are deliberate, resulting in self-inflicted destruction of bodily tissue without suicidal intent and for purposes not socially sanctioned (International Society for the Study of Self-Injury 2007). NSSI has also historically been referred to as deliberate self-harm, self-mutilation, and parasuicide. The difficulty with many of these previous terms is that their definitions often encompassed a broader class of behaviors and frequently included behaviors designed to result in death (e.g., suicidal behavior). It is now well established that NSSI is a behavior distinct from suicidal behaviors, as numerous studies have documented differences between these behaviors with regards to the intent underlying each act, severity/lethality of methods used, frequency of the behavior, cognitive states surrounding the behavior, and the subsequent reactions of others to the behavior (see Muehlenkamp 2005; Walsh 2006). While a range of NSSI behaviors have been noted, typical behaviors of NSSI include skin cutting/carving, banging, bruising, and self-hitting, burning, interference with wound

healing, and inserting objects under the skin. There is great variability in the number of methods used to self-injure, with a majority of adolescents reporting the use of several different methods (Klonsky and Muehlenkamp 2007). However, cutting remains the most frequently endorsed method.

Awareness of NSSI appears to be increasing both among adults and within adolescent groups. In fact, it is very likely that if asked about NSSI most adolescents will know what it is as well as know someone who has engaged in the behavior at least once. This increased awareness of NSSI is also reflected in the estimated lifetime prevalence rates of the behavior. Studies of adolescents within high school and community samples consistently report that 14–23% of adolescents report some NSSI (Heath et al. 2009b), although rates as high as 40% have been reported (Lloyd-Richardson et al. 2007). Estimated prevalence rates are even higher among inpatient psychiatric and incarcerated adolescents. In addition, studies of mental health providers have found consistencies in the perception that the prevalence of NSSI among adolescent groups has increased significantly over the past 10 years (Heath et al. 2006; Whitlock et al. 2009a). While early studies of NSSI often reported that females were more likely to engage in NSSI than males, more recent data particularly within community samples reveal similar rates. There is little data examining racial, ethnic, or socioeconomic differences in NSSI although some studies tend to find that Caucasian individuals and those who identify as gay, lesbian, or questioning sexuality are more likely to self-injure (Heath et al. 2009b; Klonsky and Muehlenkamp 2007; Whitlock et al. 2006).

Diagnosing NSSI & Comorbidity Controversies

Historically, NSSI has only been considered a psychiatric problem within the context of borderline personality disorder as this is the only disorder listing NSSI as a symptom (APA 2000). Current research offers strong support that NSSI occurs within the context of numerous psychiatric conditions (Jacobson et al. 2008) but that for some, NSSI exists in the absence of any psychiatric disorder (Nock et al. 2006). This diagnostic heterogeneity along with the growing awareness of NSSI and increasing rates of NSSI among youth have led experts in the field to establish a disorder specific to NSSI, which should appear in the 2013 edition of the DSM (DSM-V). An abbreviated summary of the proposed criteria for the NSSI disorder appears in Table 1. While the criteria for a NSSI disorder accurately reflect the current body of knowledge about NSSI, its functions, and associated impairments, including it in the DSM-V as a new disorder still holds some controversy since there remains much about NSSI that has yet to be studied or established (e.g., family patterns, true course of disorder, epidemiology; Muehlenkamp 2005).

Establishing a NSSI disorder is largely viewed as a positive step toward recognizing the scope and

Non-suicidal Self-injury. Table 1 Proposed DSM-V diagnostic criteria for non-suicidal self-injury disorder

1. In the last year, the individual has on 5 or more days, engaged in intentional self-inflicted damage to the surface of his or her body, likely to induce bleeding, or bruising, or pain, but performed with the expectation that the injury will lead to only minor or moderate physical harm. The absence of suicidal intent is either reported by the patient or can be inferred by frequent use of methods that the patient knows, by experience, not to have lethal potential. The behavior is not of a common or trivial nature, such as picking at a wound or nail biting
2. The intentional injury is associated with at least two of the following: (a) Negative feelings or thoughts such as depression, anxiety, tension, anger, or self-criticism, occurring in the period immediately prior to the self-injurious act (b) Prior to engaging in the act, a period of preoccupation with the intended behavior that is difficult to resist (c) The urge to engage in self-injury occurs frequently, although it might not be acted upon (d) The activity is engaged in with a purpose; this might be relief from a negative feeling/cognitive state or interpersonal difficulty, or induction of a positive feeling state. The patient anticipates these will occur either during or immediately following the self-injury
3. The behavior and its consequences cause clinically significant distress or impairment in interpersonal, academic, or other important areas of functioning
4. The behavior does not occur exclusively during states of psychosis, delirium, or intoxication. In individuals with a developmental disorder, the behavior is not part of a pattern of repetitive stereotypies

Note: Potential subtyping of NSSI categories has also been proposed

Source: American Psychiatric Association: DSM-5 Development (www.dsm5.org)

problematic significance of NSSI in adolescents, lending credence to the value in further studying the behavior (e.g., Muehlenkamp 2005). It also legitimizes the problem for mental health professionals who wish to directly treat NSSI outside the context of an existing disorder, as well as highlights the behavior as a larger public health concern in need of specific prevention and intervention efforts. However, aiding the potential controversy around establishing a unique NSSI disorder is the high degree of comorbidity observed between NSSI and other psychiatric disorders as well as suicidality.

The research tends to indicate that NSSI is not a marker for any one particular disorder (e.g., Whitlock et al. 2008), but instead can be found among individuals who may exhibit one or more of a variety of psychiatric illnesses. While controversial to diagnose in adolescents (Miller et al. 2008), NSSI is strongly linked to borderline personality disorder – particularly because both share a strong underlying disturbance with regulating emotions. However, research has clearly articulated that NSSI occurs in many who do not meet criteria for borderline personality disorder. Other common disorders to NSSI among adolescent samples include depression and anxiety disorders, eating disorders, conduct and oppositional disorders, and substance use (Guertin et al. 2001; Lofthouse et al. 2009). It remains unclear if the NSSI precedes the onset of these disorders or results from an inability to cope with the concomitant symptoms of the disorder. The high degree of comorbidity between NSSI and these disorders contributes to confusion about the true uniqueness of NSSI as a distinct syndrome versus being a symptom of a larger underlying dysfunction.

Supporting such an argument is that many of the disorders commonly found among those with NSSI, as well as among individuals reporting NSSI that do not qualify for a diagnosis, share the problem of emotional dysregulation. Emotion dysregulation is characterized by a lack of awareness of emotions, inabilities to describe and express emotions, and significant difficulties coping with and modulating intense emotional experiences (Gratz 2006). A growing body of research repeatedly identifies that one of the primary functions, or motivations for NSSI, is to help gain relief from or control intense negative emotional experiences (Lloyd-Richardson et al. 2007; Nock and Cha 2009). Thus, NSSI may just be a symptom of a more generalized dysfunction with emotional processing, communication, and coping rather than representing a new psychiatric illness. More research is needed to establish a clear differentiation between NSSI and its related disorders.

One other aspect adding to difficulties with diagnosing a NSSI disorder is the comorbidity observed between NSSI and suicide. NSSI is largely distinguished from suicidal behaviors on the basis of whether or not there is a desire to die directly linked to the act of self-injury (Muehlenkamp and Gutierrez 2004; Walsh 2006). NSSI and suicide have also been found to differ with regards to the severity of injury, frequency, and chronicity of the behaviors. Nonetheless, adolescents who engage in NSSI are more likely to report higher levels of suicidal ideation and to have a history of a suicide attempt compared to adolescents without any NSSI (Muehlenkamp and Gutierrez 2007; Nock et al. 2006). There is also some evidence suggesting that NSSI may be a precursor to suicidal behavior, leading some to propose that NSSI is a less severe variant of suicidal behavior (Joiner 2006). Experts are continuing to examine the complex relationships between NSSI and suicide to help answer questions as to whether these two behaviors are clearly distinct from one another, which will further aid in the diagnostic process for a NSSI disorder.

Assessment

Critical to making an accurate diagnosis of a NSSI disorder, as well as informing treatment approaches, is the need for a comprehensive assessment of the behavior. A useful assessment of NSSI is one that inquires about the frequency, type of methods used, and functions of the NSSI. Equally important is the inclusion of items assessing suicide due to the overlap between NSSI and suicide. For NSSI, it is especially important to evaluate the context of the NSSI both in terms of understanding the environment in which the adolescent is most likely to self-injure as well as factors affecting the decision to engage in NSSI. Assessments that evaluate the emotional and cognitive state of the adolescent before the NSSI and after will provide key insights into the types of events or experiences that trigger the NSSI in addition to understanding the reinforcing aspects of the NSSI and the purpose it tends to serve for each individual. One thing that has become clear within the literature is that individuals

engage in NSSI for multiple reasons. Many of the functions identified are related to seeking relief from internal emotional or cognitive states (e.g., stopping bad feelings, self-punishment) and those related to regulating an external experience (e.g., cry for help, feel a part of a group, avoid unpleasant activities; Nock and Cha 2009). Thus, it is essential that each assessment of NSSI identifies the individually unique aspects of the NSSI because they are likely to differ across adolescents. Fortunately, there have been important strides in the development of NSSI specific tools. A handful of detailed self-report questionnaires (see Cloutier and Humphreys 2009 for a review) and semi-structured interviews (e.g., Nock et al. 2007) have been developed. Regardless of the tool used, the essential piece of a strong assessment is one in which the professional and adolescent are able to engage in an open, nonjudgmental discussion of the NSSI that leads to a comprehensive understanding of the specific behaviors, contributing factors, and perceived outcomes and purposes of the NSSI.

Causal Factors

Researchers are still trying to establish an accurate description of the course of NSSI across the lifespan, but it is well documented that NSSI typically begins between the ages of 12 and 15 (Jacobson and Gould 2007). However, recent studies of older adolescents have shown another surge of first onset of NSSI around age 17–19 (Whitlock et al. 2006). Interestingly, both of these ages of onset occur with age ranges common to key developmental and transitional periods suggesting that NSSI may be caused in part by difficulties mastering major developmental tasks such as individuating and establishing strong social ties. Adolescence is also the period in which the brain is fully maturing and going through the final stages of development into an adult brain. This process is characterized by an uneven development of the emotional and logical/problem-solving areas of the brain (Dahl and Spear 2004), and studies of psychopathology have implicated this uneven brain development as potentially contributing to the onset of a variety of psychiatric illnesses as well as impulsive behaviors. Thus, it is possible that NSSI occurs primarily during adolescence in part because the emotional centers of the brain develop before the core coping centers of the brain leaving the adolescent at a loss for how to effectively manage the intense emotions they experience. Furthermore, there is emerging evidence that adolescents who engage in NSSI have lower levels of serotonin in their brain compared to adolescents without NSSI, suggesting that NSSI may help to improve mood states by increasing serotonin levels (Crowell et al. 2008).

In addition to biological causes, theories offering causal explanations for NSSI tend to focus on early childhood experiences and family environments. Research has documented strong connections between negative family experiences such as experiencing separation from parents, family violence, and poor communication and NSSI. One consistent finding is that adolescents who engage in NSSI are much more likely to report a poor connection/bond to their caregivers and to describe their caregivers as being highly critical and invalidating (Glassman et al. 2007; Muehlenkamp and Gutierrez 2007). It is also commonly believed that sexual abuse contributes to the likelihood of NSSI behaviors but a recent meta-analysis of over 40 studies identified a weak association between sexual abuse and NSSI (Klonsky and Moyer 2008). Instead, it is now believed that the connection between NSSI and sexual abuse is likely a result of their shared risk factors and associated psychiatric disorders (e.g., PTSD). Physical abuse, however, appears to share a stronger and more direct relationship with NSSI (Klonsky and Moyer 2008; Muehlenkamp et al. 2010a). Collectively, the developmental theories of NSSI indicate that chaotic and invalidating early childhood environments are likely to have a strong influence on the later development of NSSI (Linehan 1993; Yates 2009). Additional longitudinal research is required to establish a more solid understanding of the early causal factors in the developmental trajectory toward NSSI in adolescence.

One additional factor has recently begun to be examined as a potential causal factor in the onset of NSSI: the media and social influences/contagion. A handful of studies have documented that adolescents who engage in NSSI are significantly more likely to know of others who also self-injure (Muehlenkamp et al. 2008). It is also widely known that adolescence is a time period where youth are particularly susceptible to social pressures and peer influences on behavior. Aiding adolescent vulnerability to social influence processes is the importance media plays in the adolescent life, as adolescents are the major consumers of all types of media (Roberts et al. 2005). Of concern is the

increasing exposure teens have to NSSI through popular media. In fact, Whitlock et al. (2009b) have noted that the prevalence of NSSI over the past 20 years has increased in tandem with the rising number of portrayals of NSSI in TV shows, movies, Internet sites, and print media. Furthermore, the media often glamorizes the NSSI behavior as a desired coping strategy to deal with stress and rarely depicts the many negative consequences of NSSI. It is believed that this portrayal of NSSI may lead to increased rates of NSSI among teens by normalizing the behavior, or through the simple fact that exposing adolescents to behaviors such as NSSI, tends to increase chances a teen will consider it (Hodgson 2004). While there have not been extensive studies examining contagion-based trends for NSSI, a large body of research on the social contagion of suicide (e.g., Gould et al. 2003) indicates social influences and exposure are likely to play some role in causing the behavior to occur among adolescents.

Treatment

Of concern and relevance to the treatment of NSSI are findings that only a small percent of adolescents ever tell a trusted adult about their NSSI (Heath et al. 2009a). Thus, there are a number of adolescents who self-injure and never come to the attention of a treatment professional. An additional problem is that there are few interventions specific to treating NSSI in adolescents. However, a handful of studies examining treatment efficacy for disorders where NSSI is also prevalent (e.g., borderline personality disorder, depression) as well as studies of suicidal behavior lend some initial insight into potentially effective options for treating NSSI (see Muehlenkamp 2006). In general, it appears that treatments incorporating psychoeducation about NSSI and global mental health, problem solving, emotion regulation, and basic cognitive-behavioral strategies show the most promise (Nixon et al. 2009). Adolescent dialectical behavior therapy (Miller et al. 2007) is one treatment option that is designed to directly focus on reducing NSSI, and it has evidence supporting its success within both inpatient (Katz et al. 2004) and outpatient (Miller et al. 2007) adolescent treatment settings. Furthermore, there is some evidence to suggest that using common cognitive-behavioral techniques used to challenge maladaptive or irrational thoughts associated with the NSSI and teach emotion management skills is also likely to produce some success in treating NSSI among adolescents (see Newman 2009; Walsh 2006). Despite the emerging treatment guidelines offered by expert professionals within the NSSI field, the lack of empirical studies on treatment effectiveness is concerning and highlights the need to encourage more directed efforts in this venue of understanding NSSI.

Prevention

The research on preventing NSSI is significantly lacking and lags far behind that of risk factor research and to some degree, treatments of NSSI. Much of the existing prevention work relies upon expert recommendations and extrapolations from effective prevention efforts for associated problems such as depression and alcohol abuse. Some of those recommendations include designing programs that teach positive mental health skills (e.g., communication and stress management skills), reducing barriers and stigma toward help-seeking, and demystifying the behavior (Lieberman et al. 2009). However, some initial efforts to establish NSSI, specific prevention programs have begun. Currently, there exist two school-based prevention programs designed by leading experts and renowned clinicians in the field of NSSI. One, developed by S.A.F.E. Alternatives (www.selfinjury.com) is geared toward providing education and training to school personnel who may work with adolescents engaging in NSSI. The other program known as the Signs of Self-Injury program (SOSI) is marketed by Mental Health Screening (www.mentalhealthscreening.org), and focuses the prevention efforts toward adolescents. Adolescents are provided basic education about the characteristics of NSSI and are taught both warning signs for the behavior and skills for talking to a peer who may be self-injuring. The program also attempts to destigmatize help seeking and therapy for NSSI. The SOSI program has one study supporting its potential effectiveness in reducing NSSI acts and thoughts, as well as increasing help-seeking attitudes and intentions among high school adolescents (Muehlenkamp et al. 2010b) but the sample was small and in need of replication. Thus, there is great need for more extensive research on the prevention of NSSI in adolescent groups.

Conclusions

NSSI continues to be a growing problem among adolescents and many adults involved in these adolescents'

lives remain perplexed by the behavior. The amount of research exploring NSSI is expanding rapidly and has provided a strong empirical basis for understanding basic features of this behavior and the relationship NSSI has to other psychological disorders. Concerted efforts to focus on identifying the morbidity, psychiatric impact, and functional impairments associated with NSSI have led to the development and consideration of including a new NSSI disorder in the next edition of the diagnostic and statistical manual of mental disorders. However, there remain notable gaps in the current literature base, limiting extensive knowledge about NSSI. Areas of research that are particularly needed include those focused upon establishing developmentally sound etiological models for the causes of NSSI, prevention and intervention programs, epidemiological studies of the true course of the disorder, and longitudinal studies exploring the interconnections between NSSI and suicidal behavior. Pursuing research within these avenues will enhance the current state of knowledge about NSSI and ultimately contribute to efforts promoting healthy development within adolescents.

Cross-References

► Suicide

References

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., Text Revision). Washington, DC: American Psychiatric Association.

Cloutier, P., & Humphreys, L. (2009). Measurement of nonsuicidal self-injury in adolescents. In M. K. Nixon & N. L. Heath (Eds.), *Self-injury in youth: The essential guide to assessment and Intervention* (pp. 115–142). New York: Routledge.

Crowell, S. E., Beauchaine, T. P., McCauley, E., Smith, C. J., Vasilev, C. A., & Stevens, A. L. (2008). Parent-child interactions, peripheral serotonin, and self-inflicted injury in adolescents. *Journal of Consulting and Clinical Psychology, 76*, 15–21.

Dahl, R. E., & Spear, L. P. (2004). *Adolescent brain development: Vulnerabilities and opportunities*. New York: New York Academy of Sciences.

Glassman, L. H., Weierich, M. R., Holley, J. M., Deliberto, T. L., & Nock, M. K. (2007). Child maltreatment, nonsuicidal self-injury, and the mediating role of self-criticism. *Behavior Research and Therapy, 45*, 2483–2490.

Gould, M. S., Jamieson, P., & Romer, D. (2003). Media contagion and suicide among the young. *American Behavioral Scientist, 46*, 1269–1284.

Gratz, K. (2006). Risk factors for deliberate self-harm among female college students: The role and interaction of childhood maltreatment, emotional inexpressivity, and affect intensity/reactivity. *American Journal of Orthopsychiatry, 76*, 238–250.

Guertin, T., Lloyd-Richardson, E., Spirito, A., Donaldson, D., & Boergers, J. (2001). Self-mutilative behavior in adolescents who attempt suicide by overdose. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 1062–1069.

Heath, N. L., Toste, J. R., & Beettam, E. (2006). "I am not well-equipped": High school teachers' perceptions of self-injury. *Canadian Journal of School Psychology, 21*, 73–92.

Heath, N. L., Ross, S., Toste, J. R., Charlebois, A., & Nedecheva, T. (2009a). Retrospective analysis of social factors and non-suicidal self-injury among young adults. *Canadian Journal of Behavioural Science, 41*, 180–186.

Heath, N. L., Schaub, K., Holly, S., & Nixon, M. K. (2009b). Self-injury today: Review of population and clinical studies in adolescents. In M. K. Nixon & N. L. Heath (Eds.), *Self-injury in youth: The essential guide to assessment and intervention* (pp. 9–28). New York: Routledge.

Hodgson, S. (2004). Cutting through the silence: A sociological construction of self-injury. *Sociological Inquiry, 74*, 162–179.

International Society for the Study of Self-Injury. (2007). *Definitional issues surrounding our understanding of self-injury.* Conference proceedings from the annual meeting.

Jacobson, C. M., & Gould, M. (2007). The epidemilogy and phenomenology of non-suicidal self-injurious behavior a mong adolescents: A critical review of the literature. *Archives of Suicide Research, 11*, 129–147.

Jacobson, C. M., Muehlenkamp, J. J., Miller, A. L., & Turner, J. B. (2008). Psychiatric impairment among adolescents engaging in different types of deliberate self-harm. *Journal of Clinical Child and Adolescent Psychology, 37*(2), 363–375.

Joiner, T. E. (2006). *Why people die by suicide.* Cambridge, MA: Harvard University Press.

Katz, L. Y., Cox, B. J., Gunasekara, S., & Miller, A. L. (2004). Feasibility of dialectical behavior therapy for suicidal adolescent inpatients. *Journal of the American Academy of Child and Adolescent Psychiatry, 43*, 276–282.

Klonsky, D. E., & Moyer, A. (2008). Childhood sexual abuse and non-suicidal self-injury: A meta-analysis. *British Journal of Psychiatry, 192*, 166–170.

Klonsky, D. E., & Muehlenkamp, J. J. (2007). Non-suicidal self-injury: A research review for the practitioner. *Journal of Clinical Psychology/In Session, 63*, 1045–1056.

Lieberman, R. A., Toste, J. R., & Heath, N. L. (2009). Nonsuicidal self-injury in the schools: Prevention and intervention. In M. K. Nixon & N. L. Heath (Eds.), *Self-injury in youth: The essential guide to assessment and intervention* (pp. 195–216). New York: Routledge.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York: Guilford.

Lloyd-Richardson, E. E., Perrine, N., Dierker, L., & Kelley, M. L. (2007). Characteristics and functions of non-suicidal self-injury in a community sample of adolescents. *Psychological Medicine, 37*, 1183–1192.

Lofthouse, N., Muehlenkamp, J. J., & Adler, R. (2009). Non-suicidal self-injury and co-occurrence. In M. K. Nixon & N. L. Heath (Eds.),

Self-injury in youth: the essential guide to assessment and treatment (pp. 59–78). New York: Routledge Press.

Miller, A. L., Rathus, J. H., & Linehan, M. M. (2007). *Dialectical behavior therapy with suicidal adolescents*. New York: Guilford.

Miller, A. L., Muehlenkamp, J. J., & Jacobson, C. M. (2008). Fact or fiction: Diagnosing borderline personality disorder in adolescents. *Clinical Psychology Review, 28*, 969–981.

Muehlenkamp, J. J. (2005). Self-injurious behavior as a separate clinical syndrome. *American Journal of Orthopsychiatry, 75*, 1–10.

Muehlenkamp, J. J. (2006). Empirically supported treatments and general therapy guidelines for non-suicidal self-injury. *Journal of Mental Health Counseling, 28*, 166–185.

Muehlenkamp, J. J., & Gutierrez, P. M. (2004). An investigation of differences between self-injurious behavior and suicide attempts in a sample of adolescents. *Suicide and Life-Threatening Behavior, 34*, 12–23.

Muehlenkamp, J. J., & Gutierrez, P. M. (2007). Risk for suicide attempts among adolescents who engage in non-suicidal self-injury. *Archives of Suicide Research, 11*, 69–82.

Muehlenkamp, J. J., Hoff, E. R., Licht, J. G., Azure, J. A., & Hasenzahl, S. J. (2008). Rates of non-suicidal self-injury: A cross-sectional analysis of exposure. *Current Psychology, 4*, 234–241.

Muehlenkamp, J. J., Kerr, P., Bradley, A., & Adams Larsen, M. (2010a). Abuse subtypes and non-suicidal self-injury: Preliminary evidence of complex emotion regulation patterns. *Journal of Nervous and Mental Disease, 198*(4), 258–263.

Muehlenkamp, J. J., Walsh, B. W., & McDade, M. (2010b). Preventing non-suicidal self-injury in adolescents: The signs of self-injury program. *Journal of Youth and Adolescence, 39*, 306–314.

Newman, C. F. (2009). Cognitive therapy for nonsuicidal self-injury. In M. K. Nock (Ed.), *Understanding nonsuicidal self-njury: Origins, assessment, and treatment* (pp. 201–220). Washington, DC: American Psychological Association.

Nixon, M. K., Aulakh, H., Townsend, L., & Atherton, M. (2009). Psychosocial interventions for adolescents. In M. K. Nixon & N. L. Heath (Eds.), *Self-injury in youth: The essential guide to assessment and Intervention* (pp. 217–236). New York: Routledge.

Nock, M. K., & Cha, C. B. (2009). Psychological models of nonsuicidal self-injury. In M. K. Nock (Ed.), *Understanding nonsuicidal self-injury: Origins, assessment, and treatment* (pp. 65–78). Washington, DC: American Psychological Association.

Nock, M. K., Joiner, T. E., Gordon, K. H., Lloyd-Richardson, E., & Prinstein, M. J. (2006). Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide attempts. *Psychiatry Research, 144*, 65–72.

Nock, M. K., Holmberg, E. B., Photos, V. I., & Michel, B. D. (2007). Self-injurious thoughts and behaviors interview: Development, reliability, and validity in an adolescent sample. *Psychological Assessment, 19*, 309–317.

Roberts, D. F., Foehr, U. G., & Rideout, V. (2005). *Genderation M: Media in the lives of 8–18 year olds*. Washington, DC: Henry J. Kaiser Family Foundation.

Walsh, B. W. (2006). *Treating self-injury: A practical guide*. New York: Guilford.

Whitlock, J. L., Eckenrode, J., & Silverman, D. (2006). Self-injurious behaviors in a college population. *Pediatrics, 117*, 1939–1948.

Whitlock, J. L., Muehlenkamp, J. J., & Eckenrode, J. (2008). Variation in non-suicidal self-injury: Identification and features of latent classes in a college population of emerging adults. *Journal of Clinical Child and Adolescent Psychology, 37*, 725–735.

Whitlock, J. L., Ells, G., Cummings, N., & Purington, A. (2009a). Non-suicidal self-injury on college campuses: Mental health provider assessment of prevalence and need. *Journal of College Student Psychotherapy, 23*, 172–183.

Whitlock, J. L., Purington, A., & Gershkovich, M. (2009b). Influence of the media on self-injurious behavior. In M. K. Nock (Ed.), *Understanding nonsuicidal self-njury: Origins, assessment, and treatment* (pp. 139–156). Washington, DC: American Psychological Association.

Yates, T. M. (2009). Developmental pathways from child maltreatment to nonsuicidal self-injury. In M. K. Nock (Ed.), *Understanding nonsuicidal self-injury: Origins, assessment, and treatment* (pp. 117–138). Washington, DC: American Psychological Association.

Nontraditional Families in Law

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

Adolescents increasingly live in nontraditional families, including families without either biological parents (see King et al. 2010). Although some of these family arrangements are due to the formal involvement of child welfare systems, youth more typically live with non-parental adults due to private arrangements made within families (Hynes and Dunifon 2007). These types of family arrangements emerge for a variety of reasons, such as a parent's incarceration, mental illness, substance abuse, economic hardship, death, and child maltreatment. Research increasingly has sought to understand the effects of these arrangements on adolescents' mental health and other outcomes, such as their levels of delinquency and externalizing behaviors (see Smith and Palmieri 2007; Schroeder et al. 2010). The results of these studies reveal overall disadvantages of living with neither parent, but they also show limited disadvantages relative to nontraditional families (Sun 2003). That research also shows how family resources either partially or completely account for different outcomes related to the different family structures (see, e.g., Sun 2003). Resources undoubtedly are important in determining the effects of family arrangements, but

also important are the wide variety of reasons for these arrangements, including the variety of ways parents may or may not remain involved. Although parents may be free to place their children in a wide variety of family formations, and a state may do so as well, it does not necessary follow that the newly formed family configurations themselves receive much legal protection. In fact, these family arrangements raise important legal issues, with the central one being the extent to which the law can recognize them as equal to traditional family arrangements.

In the United States, the legal system typically embraces a narrow view of families, as it privileges traditional families (heterosexual and married biological parents). Still, there has been some movement to recognize other family forms. For example, the Supreme Court has done so most notably in its series of cases addressing kinship ties other than those between spouses or biological parents and their biological children. In some instances, the Court has sublimated the expanded family to the biological one when it has offered reasoning that goes beyond the rulings of specific cases. In other instances, the Court has granted the protection to the non-biological or non-marital family. In yet other cases, the Court has expanded its notion of kinship ties when it has addressed Constitutional questions surrounding adults' intimate relationships. These new lines of cases highlight important movements in legal responses to changing family structures. As a rule, however, these cases reveal that nontraditional "family" relationships receive reduced protections, if they receive protections at all. When it comes to family life, the legal system's default rule gives preference to traditional families, which are married, heterosexual couples with children.

The Court squarely faced issues regarding the rights between adult family members and their children in *Smith v. Organization of Foster Families for Equality and Reform* (O.F.F.E.R.) (1977). In that case, the Court directly dealt with the rights of nonnuclear, non-marital family members that constituted a foster family. In *Smith*, a group of foster parents challenged New York's procedures for removing foster children from their homes. The foster parents argued that they had a protected liberty interest entitling them to a hearing before a child's removal from their foster homes. In support of this claim, the foster parents pointed to the psychological bonds established between foster parents and foster children in their care. In essence, the foster families argued that they were the functional equivalent of "natural" families. The Court recognized that children in foster placements often lose contact with biological parents when placed in foster care, and that children often develop deep emotional ties with their foster parents. Despite this recognition, the *Smith* Court concluded that foster parents' state-created contractual rights lose out to the conflicting liberty interests of biological parents. Although the Court considered the appropriateness of a broader notion of family and recognized it as a reality, it refused to grant foster families equality to, much less precedence over, natural families.

The same year that the Court decided *Smith*, however, the Court also decided *Moore v. City of East Cleveland* (1977), in which the Court adopted its broadest view of what constitutes a family in law. *Moore* involved a challenge to a city ordinance that adopted a narrow view of families in the manner it allowed only nuclear family members, essentially a couple and their dependent children, to live together. More specifically, a grandmother who had allowed her grandson to live with her challenged her criminal conviction under the statute. The Court held that the zoning ordinance could not restrict cohabitation between grandparents and other relatives. The Court stated its rationale for this broader conception of family as follows.

> Ours is by no means a tradition limited to respect for the bonds uniting the members of the nuclear family. The tradition of uncles, aunts, cousins, and especially grandparents sharing a household along with parents and children has roots equally venerable and equally deserving of constitutional recognition . . .Even if conditions of modern society have brought about a decline in extended family households, they have not erased the accumulated wisdom of civilization, gained over the centuries and honored throughout our history, that supports a larger conception of the family (Moore v. City of East Cleveland, 1977, pp. 504–505).

While reaching this unusual result that granted Constitutional protection to a nonnuclear family, the Court simultaneously reaffirmed its prior decisions that "the Constitution protects the sanctity of the family precisely because the institution of the family is

deeply rooted in this Nation's history and tradition" (Moore v. City of East Cleveland, 1977, p. 503). Thus, despite an apparent broadening of what the law deems as constituting a family, the Court made clear that it still adhered to a central definition of family as rooted in biology (blood), adoption, or marriage. In *Moore*, then, the Court recognized the importance of the "extended family" in American society requires it to protect extended families from state interference when those families essentially take a nuclear form and function.

The Court's most recent iteration of Constitutional protections of adult/child family relationships, *Troxel v. Granville* (2000), involved children's ties to grandparents. In this case, the parents shared a romantic relationship and had two daughters outside of wedlock. After separating, the father moved in with his parents and the mother retained custody of the two girls. The father's parents often saw the girls during visits with their father in their own home. The father committed suicide, and his parents continued to see the girls regularly. Eventually, the girls' mother sought to reduce the amount of time the girls spent at their grandparents' home. The grandparents filed a petition for court-ordered visitation under two state statutes, both of which gave legal standing to non-parents. The Supreme Court held that the statute that allowed a family court to order visitation rights for "any person" if "visitation serves the best interest of the child" violated the mother's substantive due process right to make decisions concerning the care, custody, and control of her children (Troxel v. Granville, 2000, p. 57). Citing its prior decisions on parental decision-making authority and autonomy, the *Troxel* Court held that the primary role of parents was established as an "enduring American tradition" reflecting "western civilization concepts of the family as a unit with broad parental authority over minor children" (Troxel v. Granville, 2000, p. 66). Apart from validating the principle that parents have the right to raise their children without governmental interference, the Court did little to define what types of families would qualify for this protection. Invoking a long line of cases that recognized the rights of parents to raise their children as they see fit, the Court determined that the statute in question disregarded the traditional presumption that parents act in the best interests of their children. The Court explained that this presumption precludes a parent from being placed in the position of disproving that visitation would be in the best interest of their children. Instead, the Court required deference to parents' determinations of their children's best interests. The Court declined to define what level of deference would be required and did not explain whether this presumption applied equally to all parents. But the Court strongly implied that such deference would control in the absence of a finding that a parent was unfit. Yet, the Court had closely considered the changing demographics of the American family life, as it nonetheless characterized grandparents as third parties who could gain visitation privileges to promote children's welfare if they actually had assumed parental responsibilities. In the end, however, even the dissenting opinions held traditional families in higher regard than other family configurations.

The *Troxel* case's reasoning and holding support the general rule that it is difficult to expand visitation rights (and, through those, relationships) to individuals outside of families. Having custody is of considerable significance, as the Court already has recognized that families of divorce produce reduced parental rights for those who do not secure custody. The Court, then, evinces reluctance to credit seriously the constitutional rights of noncustodial parents, let alone those who are not acting as parents. By doing so, the Court places the control of the development of children's relationships firmly within the hands of custodial parents and, through that, reduces the recognition that could be given to relatives and non-relatives outside of the nuclear family.

Although the Supreme Court has been willing to recognize the important role that nontraditional and extended families can play in the lives of youth, that recognition has not translated to much increased legal protection. The Court, in leading cases like *Meyer v. Nebraska* (1923) and *Pierce v. Society of Sisters* (1925), has held that parents have a fundamental constitutional right to raise their children without state interference. But if those raising the children are not their parents, they retain reduced legal protection. As a result, there may exist many types of social arrangements many view as families, but they have yet to align well with those that the Court bestows with robust protection. While aware of these changing demographics, the Court still envisions nuclear, traditional families as archetypes of family life.

Cross-References

► Family Policy
► Parental Rights

References

Hynes, K., & Dunifon, R. (2007). Children in no-parent households: The continuity of arrangements and the composition of households. *Children and Youth Services Review, 29*, 912–932.

King, V., Mitchell, K., & Hawkins, D. N. (2010). Adolescents with two nonresident biological parents: Living arrangements, parental involvement, and well-being. *Journal of Family Issues, 31*, 3–30.

Meyer v. Nebraska, 262 U.S. 390 (1923).

Moore v. City of East Cleveland, 431 U.S. 494 (1977).

Pierce v. Society of Sisters, 268 U.S. 510 (1925).

Schroeder, R. D., Osgood, A. K., & Oghia, M. J. (2010). Family transitions and juvenile delinquency. *Sociological Inquiry, 80*, 579–604.

Smith v. Organization of Foster Families for Equality and Reform, 431 U.S. 816 (1977).

Smith, G. C., & Palmieri, P. A. (2007). Risk of psychological difficulties among children raised by custodial grandparents. *Psychiatric Services, 58*, 1303–1310.

Sun, Y. (2003). The well-being of adolescents in households with no biological parents. *Journal of Marriage and the Family, 65*, 894–909.

Troxel v. Granville, 530 U.S. 57 (2000).

Normality

Roger J. R. Levesque
Indiana University, Bloomington, IN, USA

Despite the importance of what constitutes "normal" in the study of human development, it remains a term difficult to define. Indeed, there are many ways of defining normality, as was comprehensively examined by Offer and Sabshin's (1966, 1991) works promoting the study of normality within psychiatry and clinical psychology. Their analysis noted that the most frequently used definition of normality used by mental health experts is the view that normality means an absence of mental illness, a perspective deemed "normality as mental health." A second approach adopts a statistical view and defines normality as average, as the normal profile in a population. This approach focuses on the extent to which an individual conforms to descriptive norms or understandings of how most behave. Another approach focuses on normal as utopia, as ideal social functioning. This approach focuses on the fulfillment of one's potential, as described, for example, in the concept of self-actualization. Yet another approach views normality as a process, such as a lifelong process of personality development that requires mastery of life's tasks. Lastly, a definition of normality as dynamic hegemony has been proposed to highlight how normality fundamentally involves what those with power over individuals, such as peers, teachers, parents, courts, media, and society, influence what individuals are and should be like. Importantly, other researchers have suggested other ways to view normality. Notably, Wood et al. (2007) would add the view of normality as a relative construct. This view emphasizes that the manner normality appears to be a fuzzy and shifting construction that is the end result of multiple transactional systems (e.g., social, psychological, and biological) that vary across time and context.

Despite the many ways of defining and understanding normality, research relating to adolescent development has not engaged the different approaches. In the study of adolescence, the most dominant framework has adopted a focus on normal as lacking pathology or disorder. Although some research has focused on identifying a continuum of normal to abnormal behavior (see McDermott and Weiss 1995), most research instead measures symptoms, with the presence of which identifying abnormality. Importantly, there have been important efforts to approach normality during adolescence from the view of common or average situations or experiences. That approach has been quite successful in developing a more realistic view of the period of adolescence, one that can vary considerably from popular misperceptions of normal adolescence (see Offer and Schonert-Reichl 1992; Arnett 2007). But even the studies focusing on averages essentially center on distinctions between healthy and not healthy, or adjusted and not well adjusted, to show that adolescents typically are much more healthy than popular views might suggest.

Cross-References

► Abnormality

References

Arnett, J. J. (2007). Suffering, selfish, slackers? Myths and reality about emerging adults. *Journal of Youth and Adolescence, 36*, 23–29.

McDermott, P. A., & Weiss, R. V. (1995). A normative typology of healthy, subclinical, and clinical behavior styles among American children and adolescents. *Psychological Assessment, 7*, 162–170.

Offer, D., & Sabshin, M. (1966). *Normality: Theoretical and clinical concepts of mental health*. Oxford: Basic Books.

Offer, D., & Sabshin, M. (1991). Normatology: The next step. In D. Offer & M. Sabshin (Eds.), *The diversity of normal behavior* (pp. 405–419). New York: Basic Books.

Offer, D., & Schonert-Reichl, K. A. (1992). Debunking the myths of adolescence: Findings from recent research. *Journal of the American Academy of Child & Adolescent Psychiatry, 31*, 1003–1014.

Wood, D., Gosling, S. D., & Potter, J. (2007). Normality evaluations and their relation to personality traits and well-being. *Journal of Personality and Social Psychology, 93*, 861–879.