adolescent health

Resilience and coping strategies in adolescents

Abstract
Resilience has gained considerable attention over the past four decades since researchers observed that children and youth could cope and adapt in spite of adversity. Adolescence is considered to be a period of vulnerability for most individuals as they often partake in risky behaviour. Using multiple databases and inclusion criteria, a review of the literature was undertaken to determine what is known about this concept in reported studies from 2000-2008.

Empirical evidence indicates that resilience is dynamic, developmental in nature, and interactive with one's environment. A variety of variables have been studied to clarify the concept of resilience in adolescents. Although there is an abundance of literature on adolescent resilience, little is known about this process in the healthy, well-adjusted adolescent. There are gaps and inconsistencies in reported findings. Results of the review provide useful resources for application to nursing education, practice, and research. Research resources and instruments measuring resilience provide additional knowledge. Nurses are in a key position to help the adolescent minimise risky behaviors and promote positive lifestyle practices.

Nancy R Ahern PhD, RN, assistant professor, University of Central Florida

Pamela Ark, PhD, RN, assistant professor, University of Central Florida

Jacqueline Byers, PhD, RN, CNAA, FAAN, professor, University of Central Florida

Key words
- Adolescents
- Risk assessment
- Health promotion
- Technologies
- Resilience

This article has been subject to peer review. To find related articles go to the archive section of www.paediatricnursing.co.uk

Resilience is often associated with discussions about periods of transition, disaster or adversity. Whether the topic of interest concerns a homeless teen living on the street, a dysfunctional family, or communities trying to rebuild after a disaster, resilient people seem to survive. Resilience is often viewed as an adaptive, stress-resistant personal quality that permits one to thrive in spite of adversity. Although there is controversy as to whether resilience is a characteristic, a process, or an outcome, the construct has been characterised by many researchers as a dynamic process among factors that may mediate between an individual, his or her environment, and an outcome. It is of particular relevance to nurses working with children and young people as some strategies can enhance resilience to improve outcome.

This article reports on a review of the literature that aimed to determine what is known about resilience in 25 studies reported from 2000-2008. Implications for nursing practice, education and research are drawn from the review and presented in Table 1. Further tables developed from the review are available on the *Paediatric Nursing* website: summaries of the research studies; resources for adolescent resilience research and instruments for measuring resilience (www.paediatricnursing.co.uk/adolescentresilience).

The study of childhood resilience began years ago when psychosocial researchers noticed that some individuals were able to cope and survive despite adverse conditions (Masten *et al* 1990). Much of the early research focused on trying to understand maladaptive behaviour. Researchers began to realise that the scientific community did not understand how positive outcomes were achieved. They understood that knowledge was essential in planning interventions to promote mental health in children who were at risk.

Masten (1994) has described the early years of resilience research as efforts to study this construct with children in a number of situations throughout the world. Researchers began to discover that children usually fared poorly as risk factors increased and resilience diminished (Garmezy and Masten 1994). It became clear that children and adolescents experience risk and feelings of vulnerability differently depending on the developmental stage they have reached.

Longitudinal studies have provided empirical evidence for the understanding of developmental resilience. One well-known landmark study provided essential information on resilience as a result of the compounding effects of multiple risks. Children who were born in Kauai, Hawaii in 1955 were followed for more than four decades. About one third of the children were considered to be resilient despite their risks and then continued to be resilient adults (Werner 1993). Other longitudinal studies of at-risk youth found that the effects of trauma experienced in childhood persist into early adulthood. (Hubbard *et al* 1995, Luthar 1991).

Resilience research also focused on factors or characteristics that helped individuals manage adversity (Garmezy 1991, Rutter 1985). Subsequently, attention turned toward seeking an understanding of the

mechanisms that protected individuals from risk and ways in which interventions could promote protection (Luthar 1991, Rutter 1990). Research was needed to identify resilient characteristics and the processes that enhance resilience in individuals. Such knowledge could also enable nurses and other healthcare providers to promote the ability of adolescents to negotiate risky situations.

Developmental aspects of resilience

Adolescence is a time of rapid development and change, with important consequences, some of which include the adoption of risky behaviour. Erikson (1968) hypothesised that the developmental stage of identity can result in the adolescent taking unneccesary risks. According to Erikson, risk was an essential tool in the formation of identity as the adolescent tests different identities. Fischhoff *et al* (2001) found that adolescents engage in risky behaviour because they may consider themselves to be invulnerable to danger. They may make poor life choices putting themselves at risk of physical and/or psychological harm.

Little is known about how this age group develops protective behaviour against perceived risks. A plethora of research has evaluated ways of enhancing health-promoting behaviour in adolescents? Protective factors, such as parental caring during infancy, are likely to change during subsequent developmental stages. Rutter (1993) exemplifies this idea by positing that parental caring during infancy is protective, while such parental behaviour in adolescence could hinder the child's attempts at testing different identitites.

The link between resilience and development seems to reflect the fact that the processes are interactive and endure over time. Because of their apparent sense of invulnerability to risk and danger, many adolescents participate in risky behaviour. Adults have traditionally been concerned about risk-taking behaviour in adolescents. Some US surveys indicate that such concerns may be valid, especially in relation to sexual risk-taking (Centers for Disease Control (CDC) 2006a, 2006b). In its UK Snapshot on adolescent health reports from 1990-2001 the Office of National Statistics (2004) provides summaries of health inequities in the adolescent age group, documenting that the sexual health of adolescents in the UK is of grave concern. Such concerns are most likely due to an increase in risky sexual behaviour with a resultant increase in sex-related infections and unwanted pregnancies.

Conceptual and measurement factors

Questions about what resilience is, and how it is manifested, have led to attempts to gather theoretical and empirical evidence in nursing and other disciplines. Researchers need to be able to define and measure the concept of resilience to conduct studies on it. A review of the literature shows there are a number of conceptual analyses, theoretical models, and theories which act as resources for researchers (for example, Ahern *et al* 2006, Earvalino-Ramirez 2007). Measurement instruments have also been developed; Ahern *et al*'s (2006) review identified the seven most commonly used instruments. Such resources can help nurses to plan research and help guide the planning of interventions and programmes.

Resilience research

Resilience has primarily been studied in relation to stressful times of transition (Luthar *et al* 2000,

CORBIS

'Because of their apparent sense of invulnerability to risk and danger, many adolescents participate in risky behaviour'

Olsson *et al* 2003, Tusaie and Dyer 2004). Adolescents are no strangers to such transitions. There is an extensive body of theoretical and empirical literature on resilience. As the roots of the concept are found in psychological aspects of coping and physiological aspects of stress, most of the research has been conducted in the areas of education and social sciences, although there is some published nursing research on resilience.

We conducted a literature review to identify resilience research. Key questions included: What was the study purpose? What were the key findings? What were the nursing implications? Based on these questions, inclusion criteria included all races and ethnic groups; adolescents; quantitative, qualitative, or mixed methods research; studies conducted in the developed world in any setting; nursing or non-nursing; and English language. Search terms included: resilience and adolescent or teen or youth. Limiters (where possible) included English language and human and peer-reviewed; and publication dates 2000-2008. CINAHL, PreCINAHL, PsychINFO, PsychARTICLES, and MEDLINE databases were searched for studies meeting the criteria. A total of 444 citations were reviewed. After elimination of duplications and of studies not meeting inclusion criteria, 25 studies were selected for final review.

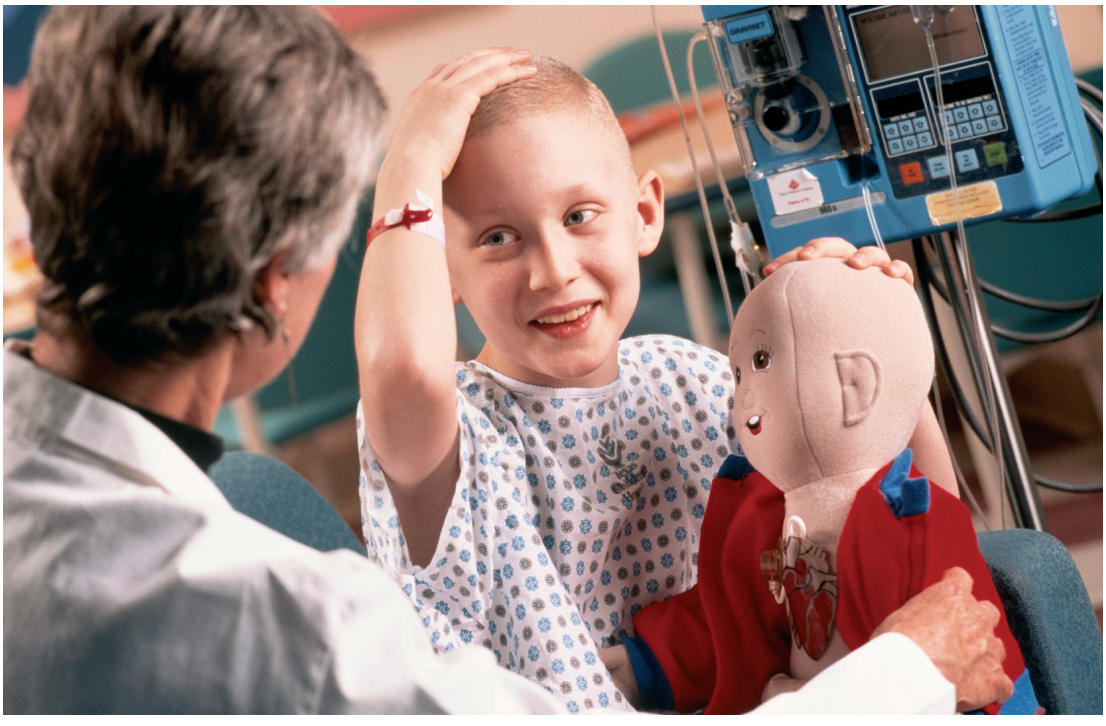
Review conclusions

The 25 studies showed that resilience research tends to monitor populations that are at risk or adolescents in adverse situations. Overwhelmingly, the findings

Table 1

Promoting resilience in adolescents: nursing implications

Education	Practice	Research
Teach how to enhance positive behaviours and minimise risky behaviors, including appropriate adaptive responses to stress. Offer courses specifically designed to help with adjustment to school and ways to cope with stress (Cook 2007). Encourage courses in relaxation techniques Provide self-help materials regarding positive lifestyle and coping topics in hard copy and/or as online resources (Frydenberg 2004). Educate basic and advanced practice nursing students and healthcare staff about ways to assess for and to encourage resilience and adaptation. Stress the importance of looking for the more subtle signs of stress which can easily be missed. Find ways to minimise the bias and stigma for use of mental health services.	Assess for protective factors and risky behaviors. Encourage positive characteristics and discourage risky behaviours. Use the developmental assets (listed below) as a framework to encourage positive characteristics: ■ Support. ■ Empowerment. ■ Boundaries and expectations. ■ Constructive use of time. ■ Commitment to learning. ■ Positive values. ■ Social competencies. ■ Positive identity (Search Institute 2007). Build trust and credibility with provision of advanced practice care (Davis 2005). Recognise that there may be a need for mental health services. Encourage individuals to seek appropriate help when needed, ensuring that systems are in place (online or facility services). Develop peer support groups, especially in higher education settings. Encourage inclusion of culture, family, and the church. Be sensitive to the needs of members of minority groups especially when in an unfamiliar environment (Ben-Ari and Gil 2004). Advocate for policy changes as needed. Base practice decision on the existing evidence.	Define further the concept of resilience in the population of study. Test resiliency models, theories, and frameworks. Determine psychometric properties and usefulness of resilience instruments in variety of applications. Perform original research and replication studies to determine ways to promote resilience and minimise risky behaviors. Search for the evidence (evidence-based practice) for strategies to enhance resilience in population of interest. Conduct research to develop and implement effective prevention programmes including strategies, such as: ■ Comprehensive services. ■ Teaching methods. ■ Appropriate medical management. ■ Positive relationships. ■ Socioculturally relevant interventions. ■ Outcome evaluation (Nation *et al* 2003). Seek grant opportunities to enhance mental health services especially in the school environment.



STONE

'Adolescents with cancer may develop defensive coping mechanisms to deal with the adversities of their treatment'

point to the importance of promoting positive behaviour, identifying risks, and including factors such as family, culture and community resoures in intervention or programme development. In a search for an elusive set of behaviours that characterise the 'resilient adolescent', researchers have studied vulnerability, characteristics of resilience, relationships of resilience with other factors, and ways to promote a positive lifestyle and minimise risk. There is no single answer to the question of how we achieve this.

Although there is a wealth of literature on this subject, there are gaps and inconsistent findings. Empirical studies have primarily focused on youth who are physically and mentally ill, maladjusted, abused, and educationally dysfunctional and those who are psychologically vulnerable, while little is known about the 'healthy, well-adjusted' adolescent. There is a lack of studies measuring resilience in the adolescent who is considered to be physically and mentally healthy.

The findings are contradictory. In most cases, resilience in adolescents is viewed as a positive characteristic, although some researchers have questioned whether resilience is truly a 'healthy' state (Hunter 2001, Hunter and Chandler 1999). While studying resilience in adolescents with cancer, Haase (1997) found that these individuals developed defensive coping mechanisms to deal with the adversities of their diagnosis. Other researchers have questioned the positive influence of resilience on stress in children or young adolescents (Higgins 1994, Valliant 1993). Resilience has typically been described as positive, therefore little is known about states of maladaptive resilience.

Another contradiction in the literature involves the relationship between social support and resilience. Despite study findings that indicated the protective factor of social support in resilient youth, the findings are contradictory. Consistent with earlier research findings Carbonell *et al* (1998) determined that there was a strong relationship between resilience and social support among youth at risk of emotional problems. Tiet *et al* (1998) in their study of youth seeking mental health services concluded that resilient youth received more guidance and support from their family members. In a sample of African-American adolescent mothers, Hess *et al* (2002) determined that adolescent mothers who have the benefit of supportive relationships seem better able to develop a satisfying relationship with their own children than mothers who lack that support. Hunter (2001) came to similar conclusions with her sample of adolescents as did Kenny *et al* (2002) and Printz *et al* (1999).

By contrast, other researchers have suggested that social support was not predictive of resilience (Aronowitz and Morrison-Beedy 2004, Dumont and Provost 1999, O'Donnell *et al* 2002, Rouse 2001). In separate studies all of these researchers reported either a contrast to previous studies and/or were surprised that social support was not predictive of resilience in their participants. The sources of social support for the adolescents included family, friends, and the school environment.

Nursing implications

Nursing care of adolescents occurs in a variety of wellness and illness care settings. Although the focus of nurses includes health promotion and health protection, early detection and prompt treatment of adolescents, the primary focus is often on education. Regardless of the setting or the role, all nursing care is guided by evidence-based practice. Knowing what the literature tells us is key to setting education and practice guidelines. Nurses must be cognisant of developmental tasks, levels of stress and effective

coping strategies, health risk behaviours, and levels of resilience when caring for adolescents. This knowledge is essential to the provision of holistic nursing care to youth. Ultimately, the nurse has the opportunity to enhance resilience and minimise high-risk behaviour through assessment, education, and referral, if needed. Advanced practice nurses provide health screening, education, diagnosis and treatment, and referrals for follow-up care of adolescents. Identifying high-risk behaviour is essential to achieving positive health outcomes. Thus, screening for such behaviour and resilience in the adolescent is critical.

For adolescents with low levels of resilience, the nurse would provide appropriate follow-up care and referral. Such interventions may include one-to-one counselling or peer-support group interventions. Perhaps because of their developmental stage, adolescents do not always act in a way that serves their best interest or they underestimate the risks of their own behaviour. Resilience research is crucial, because an understanding of resilient characteristics and the processes that enhance resilience in individuals can enable nurses to promote such behaviour.

Nurses may not always know how resilient their adolescent clients are, or how to promote positive lifestyle behaviour in every situation. Although no single resource can provide answers to all such questions, this review of literature does offer useful resources for application. Table 1 provides a summary of the implications for nursing education, practice, and research. While adolescents struggle for identity and often make poor life choices, they may or may not be resilient. No researcher to date has found the key to how best promote this process in the adolescent, yet the knowledgeable nurse is in a strategic position to make a difference with this population. PN

Acknowledgements

Jean D'Meza Leuner, PhD, RN, CNE and Donna Malvey, PhD for their review and critique of this manuscript.

References

Ahern N (2006) Adolescent resilience: An evolutionary concept analysis. *Journal of Pediatric Nursing*. 21, 3, 175-185.

Ahern N *et al* (2006) A review of instruments measuring resilience. *Issues in Comprehensive Pediatric Nursing*. 29, 4, 103-125.

Aronowitz T, Morrison-Beedy D (2004) Resilience to risk-taking behaviors in impoverished African-American girls: The role of mother-daughter connectedness. *Research in Nursing and Health*. 27, 1, 29-39.

Ben-Ari A, Gil S (2004) Well-being among minority students: the role of perceived social support. *Journal of Social Work*. 4, 215-225.

Carbonell D *et al* (1998) Risk and resilience in late adolescence. *Child and Adolescent Social Work Journal*. 15, 4, 251-272.

Centers for Disease Control and Prevention (2006a) *National Youth Risk Behavior Survey 1991-2005: trends in the prevalence of selected risk behaviors*. Department of Health and Human Services. www.cdc.gov/ealthyYouth/YRBS/pdf/trends/2005_YRBS_Risk_Behaviors.pdf. (Last accessed: November 5 2008.)

Centers for Disease Control and Prevention (2006b) Youth risk behavior surveillance – United States, 2005. *MMWR: Morbidity and Mortality Weekly Report*, 55(SS-5):1-112. www.cdc.gov/mmwr/PDF/SS/SS5505.pdf. (Last accessed: November 5 2008.)

Cook J (2007) Striving to help college students with mental health issues. *Journal of Psychosocial Nursing*. 45, 4, 40-44.

Davis T (2005) Beyond the physical examination: The nurse practitioner's role in adolescent risk reduction and resiliency building in a school-based health center. *Nursing Clinics of North America*. 40, 649-660.

Dumont M, Provost M (1999) Resilience in adolescents: protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence*. 28, 3, 343-363.

Earvolino-Ramirez M (2007) Resilience: A concept analysis. *Nursing Forum*. 42, 2, 73-82.

Erikson E (1968) *Identity: Youth and Crisis*. Norton, New York.

Fischhoff B *et al* (Eds) (2001) *Adolescent Risk and Vulnerability: concepts and measurement*. National Academy Press, Washington, DC.

Frydenberg E (2004) Coping competencies: What to teach and when. *Theory into Practice*. 43, 1, 14-22.

Garmezy N (1991) Resilience in children's adaptation to negative *life events and stressed environments*. *Pediatric Annals*. 20, 9, 459-466.

Garmezy N, Masten A (1994) Chronic adversities. In Rutter M *et al* (eds), *Child and Adolescent Psychiatry*. Third edition. Blackwell, Oxford.

Haase J (1997) Hopeful teenagers with cancer: living courage. *Reflections*. 23, 1, 20.

Hess C *et al* (2002) Resilience among African American adolescent mothers: predictors of positive parenting in early infancy. *Journal of Pediatric Psychology*. 27, 7, 619-629.

Higgins G (1994) *Resilient Adults: overcoming a cruel past*. Jossey Bass, San Francisco.

Hubbard J *et al* (1995) Co-morbidity of psychiatric diagnoses with post-traumatic stress disorders of childhood trauma. *Journal of the American Academy of Child and Adolescent Psychiatry*. 34, 9, 1167-1173.

Hunter A (2001) A cross-cultural comparison of resilience in adolescents. *Journal of Pediatric Nursing*. 16, 3, 172-179.

Hunter A, Chandler G (1999) Adolescent resilience. *Journal of Nursing Scholarship*. 31, 3, 243-247.

Kenny M *et al* (2002) Sources of support and psychological distress among academically successful inner-city youth. *Adolescence*. 37, 145, 161-182.

Luthar S (1991) Vulnerability and resilience: A study of high-risk adolescents. *Child Development*. 62, 3, 600-616.

Luthar S, Cicchetti D, Becker B (2000) The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*. 71, 3, 543-562.

Masten A (1994) Resilience in individual development: successful adaptation despite risk and adversity. In Wang M, Gordon E (eds) *Risk and Resilience in Inner City America*. Erbaum, Hillsdale, NJ.

Masten A *et al* (1990) Resilience and development: contributions from the study of children who overcome adversity. *Development and Psychopathology*. 2, 425-444.

Nation M *et al* (2003) What works in prevention: Principles of effective prevention programs. *American Psychologist*. 58, 449-456.

O'Donnell D *et al* (2002) Multidimensional resilience in urban children exposed to community violence. *Child Development*. 73, 4, 1265-1282.

Office of National Statistics (2004) National statistics UK snapshot: Adolescent sexual health. www.statistics.gov.uk/cci/nugget.asp?id=721 (Last accessed: November 5 2008.)

Olsson C *et al* (2003) Adolescent resilience: a concept analysis. *Journal of Adolescence*. 26, 1, 1-11.

Printz B *et al* (1999) Stress-buffering factors related to adolescent coping: a path analysis. *Adolescence*. 34, 136, 715-734.

Rouse K (2001) Resilient students' goals and motivation. *Journal of Adolescence*. 24, 4, 461-472.

Rutter M (1990) Psychosocial resilience and protective mechanisms. In J Rolf *et al* (Eds), *Risk and Protective Factors in the Development of Psychopathology*. Cambridge University Press, Cambridge, 181-214.

Rutter M (1985) Resilience in the face of adversity: protective factors and resistance to psychiatric disorder. *British Journal of Psychiatry*. 147, 8, 598-611.

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

Search Institute (2007) *What are Developmental Assets?* www.search-institute.org/assets/ Last Accessed: June 19 2008.)

Tiet Q *et al* (1998) Adverse life events and resilience. *Journal of the American Academy of Child and Adolescent Psychiatry*. 37, 11, 1191-1201.

Tusaie K Dyer J (2004) Resilience: a historical review of the construct. *Holistic Nursing Practice*. 18, 1, 3-8.

Vaillant G (1993) *The Wisdom of the Ego*. Harvard University Press, Cambridge, MA.

Werner E (1993) Risk, resilience, and recovery: perspectives from the Kauai Longitudinal Study. *Development and Psychopathology*. 5, 503-515.