Resilience is the ability to thrive, mature, and increase competence in the face of adverse circumstances. Recent research has uncovered personal and environmental characteristics that contribute to resilience during infancy and toddlerhood, as well as characteristics that predict resilience in later years. Resilient infants and toddlers are energetic, socially responsive, autonomous, demonstrative, tolerant of frustration, cooperative, and androgynous, among other characteristics. Their environment includes a strong caregiver-child bond, nurturance, responsiveness, and ample exploration time. Two longitudinal statistical studies, one on the prediction of future resilience from infant and toddler characteristics, and the other on the prediction of adulthood resilience from earlier life phases, indicate that an internal locus of control and strong social skills during infancy relate to later resiliency, as do social support of the mother, and caregiver characteristics such as education level, self-confidence, and coping style. These findings are important for policy makers and caregivers alike. Suggestions for policies and practices that encourage resilience development include providing social support for the family (such as on-site day care, flexible leave-time, and volunteer efforts), fostering an internal locus of control and sense of autonomy, modeling androgyny, and improving caregiver education. (Contains 12 references.) (MOK)
Infant and Toddler Resilience: Knowledge, Predictions, Policy, and Practice

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Abstract

Resilience is the ability to thrive, mature, and increase competence in the face of adverse circumstances. The few scientists who conduct research in this area are making a number of interesting discoveries. They have uncovered personal and environmental characteristics that contribute to resilience during infancy and toddlerhood. They have also uncovered characteristics which predict resilience in later years. Knowing these characteristics is important to policymakers and professional caregivers alike. With this knowledge both groups can create policies and practices that foster resilience during infancy, toddlerhood, and beyond.
Resilience, being competent despite adversity, is a relatively new area of research. It is important because approximately one third of the population is at-risk of encountering adversity, even as young children (Werner, 1992). The scientists involved in resilience research are making a number of interesting discoveries which contribute to a growing body of knowledge. This body of knowledge is important for policymakers who design programs that impact the growth and development of infants and toddlers. It is also important for professionals who care for infants and toddlers. This paper relays the information that resilience research has uncovered concerning infant and toddler resilience and describes the personal and environmental resilience characteristics of infancy and toddlerhood that are related to later resilience in middle childhood and adulthood. The latter portion of the paper highlights the findings which are important for policymakers and caregivers alike and offers some suggestions for specific policies and practices.

Knowledge

Resilience is the ability to thrive, mature, and increase competence in the face of adverse circumstances. These circumstances may include biological abnormalities or environmental obstacles. Further, the adverse circumstances may be chronic and consistent or severe and infrequent. In order to thrive, mature, and increase in competence, a person must draw upon all of (his or her) resources: biological, psychological, and environmental (Gordon, 1994). Adversity comes from various sources and competence depends upon age and environmental context. For instance, a competent infant need only hold the attention of adults in socially acceptable ways and express annoyance and affection when appropriate. However, during toddlerhood, this same infant must use adults as resources, show pride in their accomplishments, engage in role-play, lead peers, follow peers, and compete with peers (White, 1985). Therefore, resilience is a multi-faceted phenomenon that changes with each developmental phase. Accordingly, a person who is resilient in one developmental phase may or may not be resilient in another developmental
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phase. Past research has uncovered personal and environmental characteristics that contribute to resilience during infancy and toddlerhood. Past research has also shown what infant and toddler characteristics are related to resilience in later life stages (Murphy & Moriarty, 1976; O'Grady & Metz, 1987; Werner & Smith, 1982, 1992). This accumulated body of knowledge is informative to policymakers interested in the care and education of infants and toddlers.

Personal Characteristics

Infants

Resilience can be seen as early as infancy. During this time some infants who live in stressful, economically disadvantaged circumstances demonstrate more competence than others. Resilient infants are described as active, energetic, and easy going. They have the capacity to elicit positive responses from others (Werner & Smith, 1982); they are socially responsive and they elicit and receive attention from others (Murphy & Moriarty, 1976). They display determination, frustration tolerance, impulse control, and gratification delay. It is believed that resilient infants are born with a more adaptable neurochemistry and genetic make-up (IMHI, 1992). However, the environment still plays an important role.

Toddlers

Resilient toddlers display similar characteristics. They are autonomous and able to elicit positive responses from others. They are more intelligent than their non-resilient peers (Werner & Smith, 1982). They are accepted by their peers and appear less timid and less hostile. When rated on the Vineland Social Maturity Scale, (Werner & Smith, 1982), resilient toddler males are more socially demonstrative, dominant, active, and able to endure, while resilient toddler females are social, active, and able to adapt. Both genders are friendly, socially responsive, sensitive, and cooperative with a positive sense of self (Garmezy, 1981 and IMHI, 1992). Murphy and Moriarty (1976) state that resilient toddlers display autonomy that is tempered by adequate cooperation and compliance. They expect adults and others to respect their autonomy. They are also androgynous. Resilient toddler males have deeper affective expression, sociability, and demonstrativity than non-resilient toddler males. Resilient toddler females are better coordinated, not as timid as non-resilient toddler females. Resilient toddler females are also interested in environmental exploration (Murphy & Moriarty, 1976 and Werner & Smith, 1982)
It is important to note that even though it may seem at this point that resilience is mostly a biological or genetic phenomenon in infancy and toddlerhood, this is not wholly the case. These characteristics come about as an interaction between biology and the environment (Steinberg & Meyer, 1995 and Werner & Smith, 1982). Just as all development is the result of this interaction, resilience is too. This becomes more apparent in later developmental phases. Overall it seems that the five most prominent personal resilience characteristics are intelligence, autonomy (independence), androgyny, social skills, and an internal locus of control. All five of these characteristics seem apparent in infancy and toddlerhood. However, the environment plays a role, even at these early ages.

Environmental Characteristics

Past research demonstrates that some environmental characteristics are related to resilience during this developmental phase (infancy and toddlerhood). To the extent that caregivers can provide these types of environments it is more likely that the child will be resilient. During the pregnancy and delivery there seems to be fewer problems (Nuechterlein, 1970). There is very little separation of infant and primary caregiver during the first year (Werner & Smith, 1982), which ensures for an important bonded, trusting relationship (IMHI, 1992). If substitute care exists it is provided by a family member in a warm and consistent manner (Werner & Smith, 1982). The primary caregiver is responsive to the child’s verbal as well as non-verbal signals. He or she enjoys his or her child tremendously, feels confident about performing his or her duties (Murphy & Moriarty, 1976), and is nurturant (Rutter, 1985). These caregivers provide cuddling, pictures, and toys for stimulation, as well as ample exploration time (Murphy & Moriarty, 1976) and nurturing (Rutter, 1985). Families begin to mark historical transitions such as birthdays and establish special events and family patterns (Clark, 1983). For female infants and toddlers the caregivers are kind, temperate, affectionate, and content, providing bodily contact (Rutter, 1985).

Given all of this knowledge about personal and environmental resilience characteristics in infancy and toddlerhood one can begin to predict resilience in later years. However, the multi-faceted nature of the phenomenon makes predictions somewhat difficult. Therefore, longitudinal studies of resilience are necessary in order to truly predict subsequent resilience. Fortunately, some longitudinal studies have been conducted.
Predictions

When predicting future resilience based on infancy and toddlerhood a number of variables seem to be important. Two major longitudinal studies have been conducted which have completed statistical analyses of a predictive nature. One study (O'Grady & Metz, 1987) examined which infancy and toddler characteristics predicted resilience in middle childhood (6 to 7 years of age). The other study (Werner & Smith, 1992) predicted adulthood resilience from earlier life phases. Both personal and environmental predictive factors were relayed.

**Personal**

During the middle childhood years (6 to 7) internal locus of control in infancy is an important factor when considering school problems and social competence in this age period (O'Grady & Metz, 1987). In fact, an internal locus of control during infancy was the only factor which related to resilience in the middle childhood years.

For later adult years, the absence of distressing eating and sleeping habits in infancy predicts later resilience. For males being active in infancy relates to subsequent resilience in adulthood. For females being cute, affectionate, and cuddly, does. Social skills during infancy and toddlerhood are also related to resilience in later years. Infants and toddlers who are agreeable, friendly, relaxed, responsive, self-confident, and sociable are more likely to be resilient in their adult years (Werner & Smith, 1992). These characteristics exhibited during infancy and toddlerhood are related to resilience in adulthood.

**Environmental**

Environmental factors during infancy and toddlerhood can also predict subsequent resilience. The predictions are true in middle childhood and adulthood as well. Social support of the mother during infancy is related to resilience in middle childhood (O'Grady & Metz, 1987).

In later adult years, the educational level of the opposite sex parent is important. It also helps if the caregiver is responsive and accepting as well as affectionate, kind, temperate, and able to take things in stride. The primary caregivers of infants who are
Infant and Toddler resilient in adulthood are intelligent, self-confident, and self-controlled and they indulge their babies more. For males, the coping style of the primary caregiver in infancy is influential for resilience in adulthood as well (Werner & Smith, 1992).

The knowledge that we have about personal and environmental characteristics that contribute to resilience during infancy and toddlerhood is valuable. It is even more astounding that we can predict subsequent resilience from some of these characteristics. Certain personal and environmental resilience characteristics in infancy and toddlerhood relate to resilience in middle childhood and adulthood. This information is all very important for policymakers and professional caregivers to know and understand in order for them to create policies and practices that enhance resilience.

Policy and Practice

Obviously, resilience is a phenomenon which exists. Even during infancy and toddlerhood, the resilient and non-resilient can be identified. Some of the protective factors are even predictive of later resilience in middle childhood and adulthood. Therefore, knowledge of resilience research findings seems important for concerned policymakers and professional infant and toddler caregivers. Some of the issues raised in regards to policy are social supports, fostering an internal locus of control, advocating education, enhancing autonomy, and enhancing androgyny.

Social supports

Social supports during infancy and toddlerhood predict resilience in middle childhood and nurturing is related to resilience during infancy and toddlerhood and adulthood. Research underscores the importance of providing a strong social support system to highly stressed families with young children. This social support allows the primary caregiver to be more nurturing (O'Grady & Metz, 1987). This idea needs to be remembered when making policies concerning economics, employment, and volunteering and practicing as a caregiving professional.

Concerning economics, it helps if policymakers realize that infant and toddler caregivers contribute to the economics of this country. Therefore, infant and toddler caregivers, whether parents or substitutes, need social support. They need others to buffer their stress and provide respite care, especially if the infant or toddler has a
special need or the infant or toddler is in an impoverished and stressful situation. Caregivers also need social support for their emotions. Federal or state expenditure for social support systems is progressive in the long run since social support contributes to resilience in later years.

Concerning employment, employers need to provide their employees with support during pregnancy and their child's infant and toddler years. This support can come through providing on-site daycare programs, more flexible leave policies for mothers and fathers, and parental support groups. On-site day care is not a new idea. However, its link to resilience is new. This link just provides more proof that such programs are needed. More flexible leave policies are not a new idea. However, more employers need to provide flexible leave policies to mothers, fathers, and other family members as well. This is all important, considering the link between social support and resilience. Parent support groups are a relatively new idea. Support groups can provide emotional support and advice to new and expecting parents. All of which relate to resilience in middle childhood.

As for volunteers, we need more volunteers to assist with new parents, especially those who may be impoverished, stressed, young, and uneducated. The volunteers can provide much needed social support. They can lend an ear and a shoulder. They can provide advice and respite care. All of this support is needed and can be supplied by volunteers from religious and civic organizations.

As for practical considerations for professional caregivers, they can be instrumental in providing social support. They can do this by arranging support groups and volunteer contacts. They can also refer parents to respite care agencies or provide respite care themselves. They can also act as advocates with employers and policymakers, convincing them how important social support is. There is plenty the caregiving professional can do in the area of social supports. In fact, just being emotionally supportive to parents during their day-to-day interactions is important. This is done by smiling at parents when they enter the caregiving room, listening intently with sympathy as they relay concerns, and providing encouraging words about the development of their child.

**Internal Locus of Control**

An internal locus of control is important. It relates to resilience during infancy, toddlerhood, and subsequently during middle childhood; it can be fostered by
providing successful experiences with meaningful tasks and relating the success to the child's own abilities. This fact needs to be taken into account when acting as a caregiving professional or creating policy dealing with curriculum, parenting skills education, and the training and education of those who work with young children.

In regards to curriculum, curriculum for infants and toddlers needs to provide meaningful experiences which relate to the child's life. The children need to be given some autonomy when encountering these experiences and they need to be explicitly shown how their successes depend on their own abilities. These type of experiences, which foster an internal locus of control, need to be included in all infant and toddler curricula.

Parents also need to learn how to foster an internal locus of control. This should be included in all parenting skills education classes. Teaching parents how to provide meaningful experiences at which the child can be successful is important because it relates to resilience. To illustrate, a parent of an infant needs to allow her to feed herself at the appropriate time and reinforce how the infant relied on their own abilities, even though this is messy and not at all expedient. Parents of toddlers need to provide time and opportunities for toddlers to dress themselves, although this is not expedient either. Success at these meaningful experiences will foster an internal locus of control which is important and related to resilience.

Professional infant and toddler caregivers need to learn how to foster an internal locus of control, too. College professors who prepare them should be familiar with these ideas, too. This information needs to be provided in their formal educational program during course work and during practical experiences. It also needs to be modeled by the superiors of professional infant and toddler caregivers during their practical experiences.

Once they begin working with infants and toddlers, professional caregivers can foster an internal locus of control within the children with whom they work. They can do this by providing the infants with meaningful experiences at which they can be successful. Caregivers can also support parents by providing workshops on the topic which tell them in concrete terms how to foster an internal locus of control in their infants and toddlers.

**Autonomy**

Autonomy is important for the development of resilience, too. This can be
fostered by allowing the child to complete developmentally appropriate tasks on his/her own. This relates again to curriculum and parenting skills policies, as well as the education of college professors concerned with the education and training of professionals who work with young children.

Autonomy can be fostered by allowing the infant or toddler to complete tasks on their own. Hand washing and choosing activities are examples of tasks that infants and toddlers can complete on their own at a developmentally appropriate time. They can also retrieve their own hidden objects and replace toys in their proper location. These ideas need to be placed into any infant and toddler curriculum. They also need to be taught to parents during parenting skills classes and to undergraduate and graduate students as they prepare to become educators.

In the professional infant and toddler classroom strategies for promoting autonomy can be remembered. The caregivers can allow hand washing and choice of activities. They can allow toddlers to replace their own toys on the shelves when they are finished. These and other like tasks can be allowed in order to foster infant and toddler resilience.

Androgyny

Androgyny in its pure sense, demonstrating both traditionally male and traditionally female characteristics when appropriate, is related to resilience. As teachers of young children we can foster this by permitting it to occur and modeling it. This is important where policy involving curriculum, parenting skills, and undergraduate education is concerned.

It is important to allow males to experience their emotions and allow them to learn productive ways for experiencing them. It is also important to allow females to explore, be adventurous, and be assertive. This idea needs to be infused into curricula for infants and toddlers. It also needs to be taught to parents and included in undergraduate educations. It also needs to be included in the graduate educations of professors who teach infant and toddler caregivers.

Once in the classroom infant and toddler caregivers can create room for androgyny. They can allow toddler males to play in the dramatic play kitchen area. They can allow girls to play with trucks and blocks. They can also model androgyny, by encouraging males to enter in infant and toddler care. Even more, the males should be able to complete non-stereotyped tasks. Don't use the males just for
moving heavy objects. Allow them to cook and feed the infants their bottles. Female professional caregivers should complete non-stereotyped tasks as well. They can move heavy objects and assemble new playground equipment. This information needs to also be shared with parents.

**The Caregiver**

Lastly, the presence of an educated and competent, loving caregiver is important. This can be provided through policies concerning general parent education, parenting skills training, the education of caregiving professionals, and the quality of infant and toddler caregiving. It also relates directly to what caregivers do each day in infant and toddler classrooms across the country.

This implies that initiatives such as Even Start and Adult Education can be helpful even to the offspring of the recipients and may benefit the country in the future as well. These initiatives should continue to receive funding. Parents who have not completed their high school education need opportunities to do so. After completing high school or the general education equivalency, they need to continue their education even further, by going to college, going to trade school, or just attending parenting workshops.

Professional caregiver education is also important. Bachelor's degree programs which prepare these professionals are of utmost importance. They should be quality programs which encourage reflection, analysis, evaluation, and synthesis. These programs should also provide some experience in caregiving settings.

While in the infant and toddler classroom professional caregivers should always provide the best care possible in a consistent manner. Quality is key. After being educationally prepared, these professionals need to provide competent care. This comes from being diligent, nurturing, and circumspect. The ideas provided in this article can help, especially if the caregiver is interested in fostering resilience or if the caregiver works with impoverished and stress clients.

Additionally, infant and toddler caregiving facilities need to be regulated and reviewed for quality, which includes consistent caregivers. In turn, those facilities and individual caregivers who are providing quality caregiving should be rewarded, monetarily and otherwise. This is important since quality, competent caregiving is related to infant and toddler resilience.
Resilience is possible during the infant and toddler years for children in stressful, adverse circumstances. This resilience is the result of personal characteristics and environmental factors. Some of the characteristics and factors lead to subsequent resilience in later years. This is encouraging information for caregivers and policymakers concerned with the education and development of infants and toddlers. Hopefully, this article has been informational and inspirational as well.
References


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