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Preadolescent Peer Friendships: A Critical Contribution to Adult Social Relatedness?

Carol S. Fullerton[1] and Robert J. Ursano[2]

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The primary aim of this paper is to review the literature on preadolescent friendships in order to examine the relationship between preadolescent friendships and social support in adulthood. Social supports are important to health, both directly and as a stress buffer. Few studies, however, have specifically examined adult social supports from the perspective of their developmental precursors and critical developmental periods. Some data indicate that the preadolescent period may be of particular importance to the development of adult social skills and ties. Observational and empirical studies of preadolescent peer relationships, and in particular best friendships, suggest unique and critical contributions to adult social relatedness. Present research is suggestive but is insufficient to validate preadolescence as a critical period in adult social relatedness. Our review has implications for better understanding the mechanisms by which preadolescent friendships effect adult social support — an important mediator of the effects of stress on health. Further longitudinal study is needed.

INTRODUCTION

A wealth of evidence suggests that adult social supports play an important role in buffering the adverse effects of stress on health, both in morbidity and mortality (for review, see Cohen and Willis, 1985). How

[1]Assistant Professor (Research), Department of Psychiatry, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814-4799. Received Ph.D. from University of Maryland. Research interests are social supports and psychological responses to trauma and disaster.

[2]Professor and Chairman, Department of Psychiatry, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, Maryland 20814-4799. Received M.D. from Yale University. Research interests are social supports and traumatic stress.

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adults develop the ability to form social supports and what may be their developmental precursors (Flaherty and Richman, 1986) are not well established. It has been suggested that the preadolescent period is critical to the development of supportive peer relationships (Sullivan, 1953). Such supportive relationships in adulthood are a major feature of the social relatedness mediating health and illness (Fleming and Baum, 1986; Heller and Swindle, 1983).

In order to examine the relationship between friendship formation in preadolescence and adult social supports that contribute to health, this paper reviews the literature on the unique features of preadolescent friendships and their relationship to adult social supports. This integration also increases our understanding of the mechanisms that underlie the relationship between adult social support and health during times of stress. We begin by briefly reviewing the relationship between social supports, health, and friendship formation. Next, we specifically review the observational and empirical literature relevant to unique contributions of the preadolescent period to peer relationships and social skills. Finally, we conclude by discussing preadolescent friendships as possible critical precursors of the adult supportive relationships which mediate the health–illness relationship.

SOCIAL SUPPORTS, HEALTH, AND FRIENDSHIP FORMATION

Social support is a term used to describe the comfort, assistance, and information an individual receives from others (Wallston *et al.*, 1983). More simply, social support is often seen as the help that is available in a difficult or stressful situation (Sarason and Sarason, 1985). Social supports directly and indirectly effect the physical health of individuals (Cassel, 1974, 1976; Cobb, 1976; Cohen and Wills, 1985; Dean and Lin, 1977; House *et al.*, 1982, 1988; Solomon *et al.*, 1987). Berkman and Syme (1979), in a landmark study examined mortality data from Alameda County, California, over a nine-year period. Those individuals with fewer social supports showed greater mortality across nearly all age groups. Social support was measured by a social network index related to group membership, marital status, and most importantly, the number and frequency of contacts with friends. The age-adjusted relative risk was 2.3 for men and 2.8 for women.

House *et. al.* (1982) studied Tecumseh County, Michigan. After controlling for baseline morbidity and health risk behaviors, they showed that social supports measured in 1967–1969 predicted mortality over the

next ten years. This finding was strongest for men but was also true for women who died of ischemic heart disease. A study of Evans County, Georgia (Schoenbach *et al.*, 1986) had similar results. In Sweden, Orth-Gomer and J. V. Johnson (1987), using a sample of over 17,000, demonstrated that low social supports predicted mortality over the following six years.

From these and other studies, the importance of adult social supports to physical health is well established. However, the mechanisms linking social supports and health are less clear (for reviews, see Barrera, 1986; Wallston *et al.*, 1983). Social support — often measured by friendships, group membership, and marital status — is most related to the capacity to form adult supportive friendships (Fleming and Baum, 1986; Heller and Swindle, 1983). This capacity is certainly built on childhood relationships (Flaherty and Richman, 1986), but which, if any, make unique or critical contributions?

The animal studies of Harlow and Harlow (1965) drew attention to the critical influence early peer interactions have on later social responses (Soumi and Harlow 1975; Soumi *et al.* 1970). An extensive literature now suggests the importance of childhood friendships to socialization throughout the lifespan (for reviews, see Berndt, 1988; Buhrmester and Furman, 1986; Hartup, 1983; Hays, 1988; Lewis and Rosenblum, 1975; Youniss and Smollar, 1985, 1989). Having friends is a significant social achievement, and an indicator of social competence and mental health (Hartup, 1978). Early peer relationships provide an opportunity for the child to become intimately involved with another, an essential feature of social adaptation in all contexts and at all ages (Hartup 1981; Lewis and Rosenblum 1975; Whiting and Whiting 1975). Peer relationships influence social and cognitive development, internalization of moral values, sex role learning and socialization of aggression (Grunebaum and Soloman 1980; Hartup, 1976).

Childhood peer interactions provide the opportunity to learn new social skills and to generalize social skills learned in the family to contemporaries and equals. Berndt (1989) pointed out that many of the key features of adult social support can be seen in the close friendships typical of preadolescence and adolescence (see Table I). Adult social supports include emotional support and sharing (frequently mutual), information requesting and obtaining, receiving tangible (instrumental) help from another, and companionship. These supportive features of interpersonal relationships are seen in friendships and have been characterized as self-esteem enhancement, intimacy and self disclosure, prosocial behavior, and interaction. In fact, a number of these skills are developmental tasks of preadolescence, the period in which peer relationships become mutual and include intimate sharing.

Table I. Type of Adult Social Support and Friendship Feature[a]

Type of Social Support Received by Adults	Feature of Children's Friendship
— Emotional/esteem support *"I have someone who takes pride in my accomplishments."*	— Self-esteem enhancement *"If you did a good job on something would [friend's name] tell you that you did?"*
— Informational support *"When I need suggestions for how to deal with a personal problem I know there is someone turn to."*	— Intimacy (intimate self-disclosure) *"If you had a problem at home or at school would you tell [friends name] about it."*
— Instrumental/tangible support *"If I got stranded 10 miles out of town there is someone I could call to come get me."*	— Prosocial behavior *"Would [friend's name] share some lunch with you or loan you some money if you needed it?"*
— Companionship support (belonging) *"There are several different people with whom I enjoy spending time."*	— Play, association, contact, common activities, interaction frequency *"Do you ever spend your free time with [friend's name]?"'*

[a] Adapted from Berndt (1989).

Preadolescence may, therefore, be of critical importance to the ability to form adult social supports. Between the ages of 8 and 10, the child is ready to be influenced by peers (Bornstein, 1950). Sullivan (1953) identified this time period (ages 8.5–11) as a critical period for the development of peer relationships and the skills necessary to adult social competence. In the next section we examine the unique contributions of preadolescent friendships to the interpersonal abilities necessary to adult supportive relationships.

WHAT'S SO UNIQUE ABOUT PREADOLESCENT FRIENDSHIPS?

Self-Esteem Through Friendships

New skills and interests directed toward obtaining approval and prestige in the peer group appear during preadolescence (Buhrmester and Furman, 1986; Zarbatany *et al.*, 1990). Gaining acceptance and esteem of peers through group affiliation impacts on feelings of self-worth during this time, particularly for the preadolescent boy (Blos, 1962). Feelings of being important to others that result from peer-group acceptance, validate the preadolescents' feelings of self-worth. Status in the peer group may at times lead to fears of exclusion and ostracism by the group (Buhrmester and Furman, 1986). Feelings of significance and self-worth that develop during preadolescence appear to be increasingly derived from social, intellectual, and motor capacities rather than parental assurance, adding to a more stable sense of self-esteem.

The esteem of a close friend or "chum" during preadolescence appears to be important to feelings of self-worth (Berndt, 1990, for review; Buhrmester, 1990; Buhrmester and Furman, 1987; Mannarino, 1978; Sullivan, 1953), regardless of peer-group status (Buhrmester and Furman, 1986). According to Sullivan, an important feature of the preadolescent intimate chumship is consensual validation. The self-disclosure typical of chumships leads to affirmation that ones' feelings and ideas are accepted, valid and worthy (Parker and Gottman, 1989). The chum relationship is central to feelings of being important to others. It is difficult, however, to distinguish between cause and effect, i.e., chumships contribute to self-esteem, or those with higher self-esteem are more likely to be involved in close friendships (see also Berndt, 1982).

Mannarino (1978) examined the effect of "chumship" on self-worth in a population of 60 male preadolescents using the Piers-Harris Children's Self-Concept Scale. Results indicated that those who had a close and stable close friendship reported higher self-esteem than those who did not. Whether preadolescents who do not have a close friendship may have lower self-esteem than those who do (Buhrmester, 1990) is unclear.

According to Buhrmester and Furman (1987), the process by which males and females validate their feelings of self-worth seem to differ. In female preadolescents this process occurs through disclosure of thoughts and feelings, while males appear to achieve this through actions and deeds. Although the preadolescent girl frequently has several same sex peers, she may be especially devoted to a special friend.

Parker and Gottman (1989) examined the processes by which children form and maintain friendships, and the functions that friendship interactions serve at different developmental periods. They assessed dyadic interactions using a well-developed coding scheme that indicated the type of interaction or social process being observed, e.g., gossip, self-disclosure, information exchange, message clarification, and conflict (Gottman and Parker, 1986). Gossip was the most salient process in friendship interaction during preadolescence. Gottman and Parker suggested that during preadolescence this mode of interaction served to reaffirm behavioral norms, values, and membership in same-sex peer groups, and to communicate core beliefs and attitudes.

Empathy and Interpersonal Understanding

The emergence of empathy and altruism during preadolescence suggests the development of greater social awareness during this time. The development of sociability in preadolescence, particularly prosocial behaviors and understanding the perspectives of others, has been an important area of empirical study. Gamer (1978) studied the expectation of prosocial behaviors between friends. She presented hypothetical stories in which children aged 6–13 were asked to decide whether the characters were friends or not and why. Older children showed a higher expectation of prosocial behavior in friendships. By ages 9–10, friends were felt to be reliable and supportive, and the subjects reported being willing to risk their own safety to help out a friend. By ages 12–13 close friendships were conceptualized as different from other friendship relations. Children aged 12–13 expressed obligation or commitment to a friend, frequently suggesting that a friend's wishes should be considered before one's own. Confiding and sharing of intimacies and feelings were more common characteristics of friendships in this age group than in younger children. Girls of all ages were more likely then boys to distinguish "best" friends from "regular" friends, and were more likely to feel that "positive interaction" was an important part of a friendship.

Berndt (1981) also studied developmental changes in prosocial intentions and behavior between same-sex friends. He compared 38 first graders (mean age of 6 years, 9 months) and 48 fourth graders (mean age of 9 years, 8 months) from a middle-class suburban elementary school. Prosocial intentions were assessed by the child's willingness to share with and help a close friend. Each subject was asked what they would do if their friend asked them to share or help in four hypothetical situations. Observations of prosocial behavior were also made while the children performed tasks together. As with Gamer's study, friends showed an increasing ability to compromise with increasing age. Fourth graders showed more prosocial intentions and prosocial behavior toward their friends than did first graders. Fourth graders also believed that their friends would be more satisfied with their decisions about how much to share and help than did first graders.

Gurucharri and Selman (1982) studied changes in interpersonal understanding from childhood to adolescence. Over a 3-year period, they examined shifts in social perspective taking in 41 boys from working-class, middle-class, and upper-class backgrounds. Subjects ranged from 6.0 to 12.1 years old at the initial interview. At each assessment, subjects were presented with the same two "interpersonal dilemmas" involving friendship and peer group relations, and were questioned about friendship formation, closeness and intimacy, trust, jealousy, conflict resolution, and termination. Overall, interpersonal understanding increased with age.

These studies of interpersonal understanding provide some support for the idea that the ability to empathize and share how another feels develops during preadolescence (Grunebaum and Solomon, 1982), particularly in best friend and chumship relationships. Preadolescents, as compared to younger children, report greater levels of confiding and sharing of intimacies, commitment, loyalty, acceptance, sharing, support, consulting with peers, common interests and activities, tolerance of conflict, and considering a friend's wishes before one's own (Bigelow and La Gaipa, 1975; Gamer, 1978; Reisman and Shorr, 1978). By ages 9–10, friends are felt to be reliable and supportive and a new quality is evident: risking one's own safety to help out a friend (Gamer, 1978).

Best Friends: Intimacy, Sharing, and Expectation of Help

Using retrospective reports of adult males, Sullivan (1953) noted the emergence of a special friend during preadolescence: a particular nonfamily member of the same sex who became a "chum" or a close friend. This special friendship was very similar to a "best friend," was always the same

sex, and had specific characteristics. With this chum, the child shared secrets, developed altruistic concern, and corrected distortions about himself by learning about someone else. The child developed a sensitivity to what mattered to the other person (Sullivan, 1953). Feelings shifted from, "What should I do to get what I want," to, "What should I do to contribute to the happiness or to support the prestige and feeling of worthwhileness of my chum?" (Sullivan, 1953, p. 245). The preadolescent phase, according to Sullivan, is especially significant in correcting autistic or fantastic ideas about one's self and others. Intimacy experienced in the chum relationship appeared to validate feelings of personal worth and self-esteem, and allowed for the recognition of grandiose fantasies. Chums share their innermost feelings, fears, and aspirations (Grunebaum and Solomon, 1982). Following the theory proposed by Sullivan, studies examining features of best friendships have ensued.

The emergence of a special friend during preadolescence was reported by Tietjen (1982) in slightly over half of the Swedish middle-class children ($N = 72$) she studied. Reports of special friendships by third graders were significantly higher than for second graders. This suggests the emergence of a special friend during this time. The majority of their children reported a preference for same-sex friends. Having a special friendship was significantly higher for females than for males. Tietjen noted other sex differences in friendship patterns related to the degree of intimacy and type of sharing: males were significantly more likely than females to play with several friends at a time rather than with one friend, have more friends, more contact with friends, and larger activity groups than girls. The majority chose to engage in activities with friends rather than with family members or alone.

In contrast to younger ages, preadolescent friendships take on a duration and best friends become prominent. A number of empirical studies have specifically examined the nature of preadolescent best friendships and, in particular, support and helping in best friendships (Berndt and Perry, 1986; Bigelow and La Gaipa, 1975; Billingham and Walters, 1978). Bigelow and La Gaipa (1975) explored the best friendships of 480 children in Grades 1–8 by asking children to write an essay about what they expected in their same-sex best friend that was different from what they expected in other acquaintances. Content analysis resulted in 21 dimensions of friendship expectations. Significant increases were found across grade levels on 16 of the dimensions: friend as help giver, common activities, propinquity, simulation value, organized play, demographic similarity, evaluation, acceptance, admiration, incremental prior interaction, loyalty and commitment, genuineness, friend as help receiver, intimacy potential, common interests, similarity-attitudes, and values. The dimension of friend as help

receiver was primarily identified by females until Grade 7 when both males and females expected their best friends to receive help. The total number of dimensions reported by an individual increased significantly with age, indicating greater discrimination of friendship patterns.

Similarly, Berndt and Perry (1986) studied the supportive elements of preadolescent best friendships by examining children's perceptions of social support provided by their friends. Children in the second, fourth, sixth, and eighth grades were asked to list their five best friends and rank order them according to how much they liked each. They were paired with a best friend if that friend also selected them ("mutuality"), and if the mean rank for the friendship pair was 4 or better on a scale ranging from 1 (*don't like*) to 5 (*like very much, as much as a best friend*). Using interview data, all of the children reported their best friends as more supportive than their acquaintances. Factor analysis showed that older children discriminated between support and conflict in friendships and acquaintanceships, while younger children did not. The sixth graders tended to give personal attributions for the lack of support from friends, saying that acquaintances were hostile or selfish. The eighth graders, however, used situational attributions, saying that they had few supportive interactions with acquaintances because they did not see them very often.

Sharabany *et al.* (1981) used a cross-sectional design to explore the development of best friendships, specifically looking at differences between same- and opposite-sex best friends. They administered a questionnaire to 480 Israeli preadolescents and adolescents who were instructed to select their best friend of the same or opposite sex and to respond to questions about the relationship. Responses were scored according to eight dimensions of intimacy: frankness and spontaneity, sensitivity and knowing how the other feels without having to be told, attachment, exclusiveness, giving and sharing, imposing and taking, common activities and trust and loyalty. The same-sex best friendships showed increasing frankness and spontaneity, sensitivity and knowing how the other feels without having to be told, attachment, exclusiveness and giving and sharing from preadolescence to adolescence. Interestingly, in the same-sex best friendships, other aspects of the friendship (trust and loyalty, and feeling free to take and impose on the best friend) did not change from preadolescence to adolescence. Girls of all ages in same-sex best friendships reported higher overall intimacy and, in particular, higher attachment, and trust and loyalty than did boys in same-sex best friends. Opposite-sex best friendships showed an increase from preadolescence to adolescence in all eight aspects of intimacy. This distinction between same-sex and opposite-sex friendships during preadolescence may support Sullivan's view of the unique qualities and importance of a same-sex chum. Fifth-grade boys and girls in opposite-sex

friendships in this study reported low levels of intimacy. However, beginning in the seventh and continuing through the eleventh grade, girls reported greater intimacy in opposite-sex friendships than did boys in these age groups.

The "best friend" emerging in preadolescence is a particular class of friendship that is different from acquaintances, friends, and the issues of popularity. Tuma and Hallinan (1979) asked fourth-, fifth-, and sixth-grade, lower to lower middle-class children to circle the names of their best friends on a class list at 6-week intervals five times during the school year. Best friends were more likely to occur with peers who were the same sex and race, and had a similar achievement level. Most children did not change their friendship choices during the 6-week time intervals. However, the stability of best friend choice was greater in same-sex dyads, and less stable in friendships with a great difference in achievement levels between the two children. Of "best friends," 75.3% were same-sex and 45.5% of the choices were reciprocally reported.

Unique aspects of same-sex best friendships, similar to chumships, can also be seen in the study by Eder and Hellinan (1978). They examined differences in exclusiveness (how a dyad responds to a third person) of same-sex dyads in preadolescents between the ages of 9 and 12. Data were collected seven times at 6-week intervals. Children were asked to name their "best friends" (students they liked very much), and their "friends" (students they liked but did not consider best friends). The majority of choices involved same-sex rather than opposite-sex friends. The females tended to be more exclusive than the males and favored dyadic to triadic relationships. The males tended to have more group interaction than the females. Their data suggests that a close, relatively exclusive same-sex friendship may be more unique for males than females.

Even Prior to publication of Sullivan's theory, several early empirical studies had examined aspects of preadolescent best friendships: changes in best friendships (Horrocks and Thompson, 1946), and selection of best friend (Austin and Thompson, 1948; Furfey, 1927). Although old, these studies are important because they suggested the importance of the preadolescent period to the development of best friendships, prior to the formative influence of more modern-day psychosocial and cognitive theories of development.

In an early study, Horrocks and Thompson (1946) examined changes in best friendships in a population of 905 boys and girls aged 10–17. They asked the children to write down the names of their three best friends; 2 weeks later the children were again asked to list their three best friends. Approximately 60% of the children reported the same person as their best friend both times. Girls, more than boys, tended to select the same person

as their best friend at both assessment points. Generally, when a new best friend was selected, the children tended to select someone previously listed as a second or third best friend. Using a similar procedure, Austin and Thompson (1948) studied the reasons given by children aged 10–16 for choosing their three best friends. Personality characteristics were the most important factors in the children's selection and rejection of best friends. Propinquity and similarity of interests and tastes were also important. In their study, about 40% of the children made no changes in the choice of their three best friends over a 2-week period.

In one of the first empirical studies published that specifically addressed chumship selection, Furfey (1927) estimated the influence of seven factors on the choice of a same-sex chum by preadolescent boys: grade location, neighborhood, chronological age, mental age, social maturity, height, and weight. In 62 pairs of mutual chums, he found that preadolescent boys tended to choose a chum who was the same size, age, intelligence, and maturity as themselves. Association at school or home was also an essential condition for formation of the friendships.

In an exploratory study of sixth-grade boys in a middle-class suburban area, Mannarino (1978) examined whether peer interactions differed between those boys who had a stable friendship ("chumship") and those who did not. Chumship was defined as a stable, mutual, like-sex friendship reported on two occasions, 2 weeks apart, and with the child saying he would rather spend time with his chum than with a group of friends. The design only allowed for like-sex chumships to be identified. Of 81 subjects, 27 (about one-third) had chumships. A second group of 27 subjects, matched for level of social acceptance and intelligence, who did not have a best friendship, were selected. Mannarino found that boys who had a chum exhibited more intimacy, attachment, frankness and spontaneity, sensitivity, exclusiveness, and sharing than those who did not have a chum.

Several studies have specifically explored the relationship of chumship to preadolescent altruistic behavior (Mannarino, 1976, 1979; McGuire and Weisz, 1982; Strickland, 1981). Mannarino (1976, 1979) studied a group of female fifth and sixth graders and a group of male sixth graders, both from middle-class suburban areas. In the study of females, Mannarino defined chumship as a stable, mutual like-sexed friendship reported twice 2 weeks apart and with the child saying he would rather spend time with the chum than with a group of friends. In the study of males, the definition of chumship was the same except that mutuality was not a criterion for the chumship. In both studies, honesty, openness, and reciprocity were evaluated using the Chumship Checklist. Altruism was measured using the subscale of the Harris Scale of Social Responsibility. The frequency of

chumship in both studies was about 30%. In the study of males (N = 92), 30 subjects (about one-third) had chumships, in the female sample (N = 105), 32 subjects had chumships. Both the male and female studies used comparison groups of children who did not have a chum matched for sex, level of social acceptance, and intelligence. The males and females who had a chum relationship displayed significantly greater levels of altruism than those children without a chum relationship.

Strickland (1981), using a population of 78 third- and fourth-grade males and females aged 8–10 years from a rural poverty area of the South, replicated Mannarino's findings with a slightly different methodology. Subjects who reported high levels of activity and sharing with a best friend received high scores on the Chumship Checklist and were classified as having a high-level chumship relationship. Subjects who reported low levels of activity and sharing with a best friend received low scores on the Chumship Checklist and were classified as having a low-level chumship relationship. The altruism subscale of the Harris Scale of Social Responsibility was also administered. Findings for this sample of slightly younger male and female preadolescents from a lower socioeconomic level supported Mannarino's findings. Individuals rated as having a high-level chumship relationship had higher altruism scores than those having a low level of chumship relationship.

McGuire and Weisz (1982) studied the interaction of chumship and popularity in the prediction of altruism and affective perspective taking in a population of 80 fifth and sixth graders in a rural area. Children were asked to list their five best friends in order of preference and to rate their involvement with each on two separate occasions, 3 weeks apart. Chumships were defined as reciprocal, stable over the 3 weeks, and having a high score on Mannarino's Chumship Checklist of involvement with a friend. Popularity was measured by rank order and frequency of selection by peers. A total of 87 out of 230 preadolescents (38%) had a friendship that met the study criteria for chumship. Having a preadolescent chum was significantly associated with altruism. Preadolescents with chums were better able to identify the emotions of others than were preadolescents without chums. Importantly, popularity was unrelated to having a chum and to altruism.

Gender Differences in Preadolescent Friendships

The friendships of preadolescent males differ from the friendships of females, particularly with regard to self-disclosure and intimacy (e.g., Berndt, 1982; Berndt and Perry, 1986; Bigelow and LaGaipa, 1980; Buhrmester and Furman, 1987; Crockett *et al.*, 1984; Douvan and Adelson, 1966; Hartrup, 1980; Hunter and Youniss, 1982). There is general agreement that girls

often report intimacy as more important in their friendships than do boys. Also, the conversations girls have with friends are more intimate than boys' friendship conversations (e.g., Berndt, 1982; Bigelow and LaGaipa, 1980). The mechanisms by which gender impacts on intimacy and self-disclosure are not well established, but may reflect stylistic (Ginsberg and Gottman, 1986) and functional (Parker and Gottman, 1989) differences between the sexes and across developmental periods.

Other gender differences have also been reported in studies of preadolescent friendships. Gamer (1978) found that girls were more likely then boys to distinguish between "best" friends and "regular" friends, and were more likely to feel that "positive interaction" was important in a friendship. Girls who engaged in activities with girls more often than with boys tended to be identified with their mothers (Billingham and Walters 1978). However, strong father preference in male preadolescents was unrelated to the choice of male or female peers. In a population of Swedish preadolescents, Tietjen (1982) found that girls reported having fewer friends than boys, and girls played more often with one friend, while boys played most often in groups. Maas (1968) found that a single chumship in males and multiple chumships in females was important to the development of adult intimacy. Maas' findings suggest that the preadolescent boy who forms a single best friendship has greater adult intimacy, despite the normative extensive relations of preadolescent boys. Additionally, the girl who can form multiple chumships, despite the normative intensive singular friendship, may have greater adult social warmth and intimacy.

PREADOLESCENT FRIENDSHIPS AND ADULT RELATEDNESS

Two empirical studies have directly examined the relationship of preadolescent chumships to adult social relatedness (Maas, 1968; Ursano, personal communication, December 16, 1988). In an earlier publication, Ursano *et al.* (1987) asked a large population of young adults entering an occupation (N = 2886), and entering college (N = 1141), to recall their preadolescent chum. Of the study group, 65.7% to 71.4% recalled a same-sex preadolescent chum, while the recall of an opposite-sex chum ranged from 3.4% to 11.4%. Recall of a preadolescent chum was not related to socioeconomic status or the sex of the individual. In a subsequent study, Ursano (personal communication, December 16, 1988) used the Berkman Social Network Index to measure adult social networks in these same populations. This is the same index used in the Alameda County Health Survey and has been shown to predict morbidity and mortality (Berkman and

Syme, 1979). The recall of a preadolescent chumship significantly correlated with adult social networks as measured by the Berkman index in both groups, even when psychological well-being was controlled.

Maas (1968) examined the records of 44 adults, age 30, who had been followed longitudinally in the Berkeley Guidance Center Project between the ages of 8 and 12. During the Berkeley Project, data were collected in annual interviews that measured play interests, activities, frequency of play, the amount of play time spent with a particular friend, enjoyment of play, and mutuality in the relationship for each individual. Judges identified the presence and number of enduring friendships (lasting at least 6 months) and those with high scores on at least two of the following characteristics: frequency of the interaction, the importance of the playmate and of conjoint activity, and reciprocity or mutuality with a particular playmate. At 30 years of age, subjects were again interviewed and rated on their adult capacity for intimacy. Ratings were done by experienced clinicians using a Q-sort technique following a review of data collected in adulthood. Maas found that having at least one preadolescent chum was neither necessary nor sufficient for the development of adult close relationships. However, "warm" male adults, those with a capacity to form close relationships, who had a preadolescent chum, tended to have had only one preadolescent chum. In contrast, "aloof" male adults, those who avoid close relationships, tended to have had preadolescent chumships that were spoiled and replaced by a series of new chums. "Warm" female adults tended to have had a large number of preadolescent playmates and were outgoing toward males as preadolescents.

RELATIONSHIP BETWEEN PREADOLESCENT FRIENDSHIPS AND ADULT SOCIAL SUPPORTS

Many studies have investigated aspects of friendship formation. Few, however, have examined childhood friendship skills as critical contributions to the health–illness relationship that is mediated by adult social supports.

"Best friends" is a category that has little meaning early in childhood when specificity and discrimination in friendships is less (Bigelow and La Gaipa, 1975) and the child has a limited choice of friends because of age and practical issues, e.g., limited mobility outside of the house. Best friendships and chumships appear to be essentially equivalent and highly characteristic of preadolescence. Best friendships tend to be like-sexed and stable (Tuma and Hallinan, 1979; Horrocks and Thompson, 1946). Giving and receiving support appears as a relatively new dimension in best

friendships (Gamer, 1978; Berndt and Perry, 1986; Bigelow and La Gaipa, 1975). Whether a best friend is of the same or opposite sex appears to be important (Sharabany *et al.*, 1981; Eder and Hellinan, 1978) and requires further study.

Studies of best friendships and chumships indicate that they are intimate, sharing, enduring, mutual, and revealing. Having a preadolescent chum predicts levels of altruism and qualitative aspects of relatedness in the preadolescent (Mannarino, 1976; McGuire and Weisz, 1982; Strickland, 1981). Chumship during preadolescence is a normative event for both males and females and is usually like-sexed (Sullivan, 1953; Ursano *et al.*, 1987). A special chum friendship is reported in 30% to 70% of preadolescents depending on the criteria used to define chumship and whether a prospective or retrospective methodology is used.

The findings of Mannarino (1976, 1979), McGuire and Weisz (1982), and Strickland (1981) support the notion that same-sex chumships allow the preadolescent to experience himself through the eyes of a chum, and to respond to the wishes of another, treating the interests of the other as important. Sensitivity to the needs of a chum during preadolescence may result in a greater likelihood of sensitivity and compassion in other interpersonal situations. The relationship of this altruism to the adult's ability to empathize and identify with others, critical functions in maintaining interpersonal relationships, is unknown but appears likely.

The characteristic experience of friendship during preadolescence, and in particular the best friend or chumship experience, contain the basic elements important to the ability to form adult social supports (see Fig. 1). The characteristics of self-esteem maintenance, empathy, interpersonal understanding, intimacy, sharing, and expectation of help are major aspects of adult supportive relationships. Certainly, generalization of the sharing of intimacy and mutual self-disclosure out of the family unit and onto peers is critical to the development of adult social relatedness. The best friend is central to this process. This aspect of preadolescence may be a core contribution to adult social supports. Present data is insufficient, however, to determine whether the preadolescent best friendship *per se* is a critical, necessary, and sufficient developmental precursor of adult social supports. The studies of Maas (1968) and Ursano *et al.* (1987) require extension to clarify how chumship in particular relates to adult intimacy and social supports. Certainly, skills important to the development of adult social supports appear to develop during preadolescence.

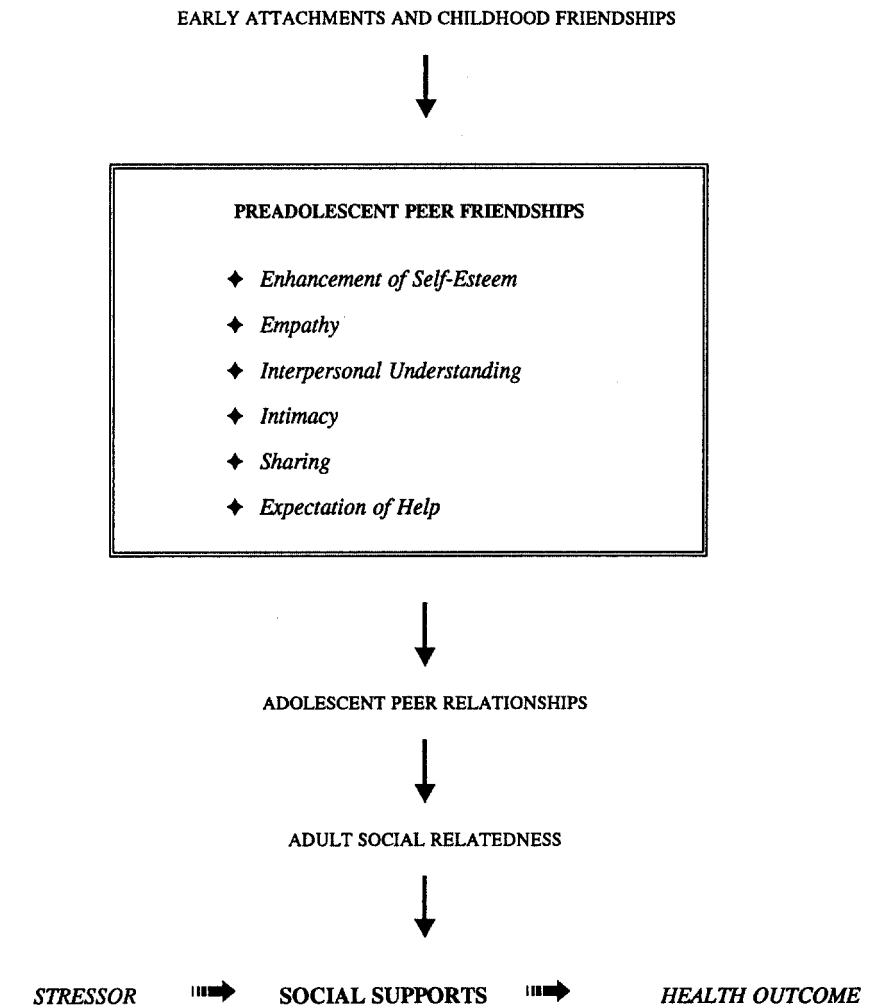

Fig. 1. Developmental precursors of adult social supports: preadolescent peer friendships and adult social supports.

Best friend and chum relationships of preadolescence are somewhat different for boys and girls. These findings are provocative. Studies of adult social supports have shown differences between males and females in the efficacy of social supports in protecting health (for review see Solomon *et al.*, 1989); however, findings are mixed. Results from an empirical study by Solomon *et al.* (1989) suggest that when personally exposed to situations of extreme stress accompanied by strong demands to provide support, both sexes show an increase in stress symptoms. Although high levels of social support alleviated these symptoms in males, females showed an exacerbation of stress symptoms. Solomon concludes that strong social ties in times of extreme stress may be more burdensome than supportive, particularly in females.

Methodological inconsistency may explain some of the variability across studies of preadolescent peer relatedness and chumship in particular. Although Sullivan (1953) defined preadolescence as including ages 8.5–11, this age range varies across studies. It is also important to distinguish preadolescent friendships from best friends, and chumship. Chumship is the most specifically defined preadolescent friendship: a close relationship formed during preadolescence with a special friend, usually of the same sex, in which one shares secrets and develops a sensitivity to what matters to their chum. Researchers have also used different criteria to define chumship. For example, mutuality of the relationship, whether the child who is selected as a special friend also selects that individual as a special friend, is not always considered in defining chumship. There is general agreement that the special friendship must be enduring over time; however, the definition of "enduring" varies from 2 weeks to 6 months or more.

Further research on preadolescent relatedness, best friends and chums, and the friendship qualities that emerge during this period is needed. The majority of empirical studies have explored descriptive aspects of the friendship relationship. In order to better understand the unique friendship characteristics of different developmental periods, comparative examination of friendships across developmental periods is needed. Assessment techniques in the study of friendship interaction must be expanded to include more observational techniques (Hartup, 1986; Parker and Gottman, 1989).

There is little direct information on the longitudinal effects of preadolescent friendships on adult social behavior patterns, and in particular the long-term consequences of not having a preadolescent special friendship. Maas (1968) observed a relationship between adult intimacy and patterns of replacing a chum during preadolescence that was different for male and female children. Thus, how and why a chumship is terminated

may have implications for the capacity to develop and maintain adult supportive relationships. Similarly, the implications of the infrequent, but not rare (Ursano *et al.*, 1987), opposite-sex chum for adult social support development is unknown. The question of whether preadolescence is a critical period for the development of later adult social supports, and whether the preadolescent best friend/chum is a necessary and sufficient condition for the development of adult social support networks, warrants further study.

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