CONTEXTS OF DEVELOPMENT
**Bronfenbrenner’s Bioecological Theory**

1. **Describe Bronfenbrenner’s bioecological theory.**

Who is the most influential person in your life now? Who was it 5 years ago? You can probably think of several people who have made a difference in your life. As children and adolescents, we grow and develop with the support and influence of people and places: our family members, friends, and teachers, as well as our neighborhoods and schools. Because of their influence on development, these people and places are considered *contexts of development.* Urie Bronfenbrenner’s (1994, 2005) bioecological theory of human development, the best-known theory on the contexts of development, emphasizes the combined function of the person (or genetics) and the many systems that exist in the environment and interact to influence development, as shown in Figure 2.1. Let’s examine this model more closely. It will be the framework for our discussion on the contexts of development throughout this module.

- **The microsystem**, the immediate environment surrounding an individual, includes the people, relationships, and systems that directly interact with the developing individual, such as family, peers, and school.

- **The mesosystem** links two or more microsystems. For example, the communication between parents and teachers links home and school environments or home and child care settings.

- **The exosystem** is the interaction among two or more environments, one of which does not directly include the individual. For developing children and adolescents, the exosystem includes links between home and their parents’ places of work. The developing child typically has no direct interaction with a parent’s workplace but is influenced by that environment indirectly. For example, parental work stress influences children’s adjustment.

- **The macrosystem** includes many of the broader cultural patterns, such as beliefs, customs, knowledge, and morals. Bronfenbrenner suggests that this is not simply the
ethnicity or social class of individuals but rather the social features that affect individuals. For example, low-income children may experience more stressors in their macrosystem—substandard housing, crowding, or community violence—than do middle-class children (Santiago, Wadsworth, & Stump, 2011).

- The **chronosystem** refers to the chronological nature of development within the individual, as well as the history of the surrounding environment. The social environment changes over time and affects developing individuals differently at various points in history. For example, the impact of divorce on child development was viewed more negatively during the 1950s than it is today.

Much of the research on development in the past 30 years has been conducted from a bioecological perspective. In this module, we will examine the following:

- The microsystems of families and peers, with special emphasis on the interaction of these within the educational system (in other words, mesosystem)
- The influence of parental employment on development (exosystem)
- Connections to ethnicity and socioeconomic status (macrosystem) as they relate to the microsystems
Arguably, the most influential microsystem in the lives of individuals is the family. Several basic aspects of families—parenting practices, divorce and remarriage—directly influence the child and how the family interacts with the school system as a component of the mesosystem.

Parenting Practices

Parenting practices, also called parenting styles, are the patterns of discipline and affection parents display with their children. These have an important influence on child and adolescent development. Diana Baumrind (1966) described parenting practices as typically including two broad dimensions: control and responsiveness. Control is the manner and strictness with which parents provide their children with limits and discipline. Responsiveness includes the affection, acceptance, and caring involved in parenting. In short, control describes the behavioral aspects of parenting, while responsiveness describes the emotional aspects. Based on the levels of these two dimensions, Baumrind describes four parenting styles, as shown in Table 2.1.

- **Authoritative parenting** includes setting limits or having rules for children and adolescents and enforcing those rules. Parents and children also exhibit a high level of emotional connectedness that allows the parents to be flexible when necessary. For example, parents may be less strict than usual because they understand that their child is having difficulty with peers at school or is upset about not making the cheerleading squad.

- **Authoritarian parenting** includes a high level of control in which limits are set and rules are enforced yet emotional connectedness is lacking. Parents may be viewed as “dictators” who are inflexible, unable to bend the rules to accommodate special or unusual circumstances. For example, a parent might make a negative comment regarding the B on the child’s report card when all the other grades are As.

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<td>Control</td>
<td>Limits are set and rules are enforced, but parents are flexible when necessary. Parents and children exhibit a high level of emotional connectedness.</td>
<td>Limits are set and rules are enforced, yet emotional connectedness is lacking. Parents are inflexible, unable to bend the rules in special or unusual circumstances.</td>
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<td>Permissive</td>
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<td>Parents either do not set rules for behavior or do not enforce established rules. However, parents do have a close connection to their children.</td>
<td>Parenting lacks both control and responsiveness. Parents typically are unaware of their child’s behavior, friends, difficulties, or achievements.</td>
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• **Permissive parenting** involves less control, with parents either not setting rules for behavior or not enforcing rules. However, parents do have a close connection to their children such that observers might refer to them as “friends” rather than parents. For example, parents may show their affection by giving in to their child’s tantrums in the grocery line and buying candy, or they may ground their adolescent but not monitor whether the teenager is home.

• **Uninvolved parenting** lacks both control and responsiveness. Parents typically are unaware of their child’s behavior, friends, difficulties, or achievements. For example, a parent may not know what activities or events are happening at school or may be unable to name his or her child’s friends. These parents are at risk of being neglectful or abusive.

Research studies consistently link authoritative parenting with positive outcomes. Children and adolescents with authoritative parents tend to have higher levels of healthy adjustment and fewer mental health issues or problem behaviors (De la Torre-Cruz, García-Linares, & Casanova-Arias, 2014; Luyckx et al., 2011; Pinquart, 2017). However, the optimal parenting style may depend on the broader cultural context within which the parents and children are living. Specifically, authoritarian parenting may be important for deterring antisocial behavior among young adolescents residing in low-income neighborhoods with high rates of unemployment and an insufficient police presence (Eamon, 2001; Mowen & Schroeder, 2018).

How do parenting practices interact with the school system? Remember that an interaction between two microsystems—in this case, family and school—is called the mesosystem. The interaction between the family and school microsystems is evident because authoritative parenting is related to academic benefits among a variety of ethnic groups for both elementary-age students and high school students (Kang & Moore, 2011; Nyarko, 2011; Pinquart & Kauser, 2018). For example, students with authoritative parents tend to have higher achievement and better attitudes toward school, spend more time on homework, are more engaged with teachers and learning, and have lower levels of maladaptive behavior in the classroom (Duchesne & Ratelle, 2010; Simons-Morton & Chen, 2009; Walker & Hoover-Dempsey, 2006). Teachers are unlikely to be able to change the parenting practices a student experiences at home, but they can gain much insight into the reasons for children’s and adolescents’ behaviors in the classroom based on knowledge about those parenting practices.

Can you determine which parenting practice was used in your home? If you had two parents, were their parenting practices the same or different? How do you think parenting practices influenced your educational experiences or academic achievement?

**Divorce and Remarriage**

Approximately 50% of all first marriages and 60% or more of second marriages end in divorce (Copen, Daniels, Vespa, & Mosher, 2012; Fine & Harvey, 2006). As a result, nearly half of all children in the United States will live in a single-parent family for some length of time (Hetherington et al., 1999). Although not all children and adolescents experience problems following divorce, some do. Children and adolescents may also experience difficulties
prior to the divorce. In fact, they tend to have the greatest difficulties a few years before and after the divorce, as indicated by poorer academic performance (Arkes, 2015; Sun & Li, 2011). The difficulties surrounding divorce are thought to be the result of changes in the functioning of the family rather than structural changes (Demo & Acock, 1996; Hadfield, Amos, Ungar, Gosselin, & Ganong, 2018). Changes in the functioning of families include a number of possible issues:

1. **Family conflict** surrounding divorce is an important aspect of family functioning related to children’s and adolescents’ adjustment (Amato & Cheadle, 2008; Bing, Nelson, & Wesolowski, 2009). Although marital conflict occurs prior to the divorce, the level of conflict often increases around the time of divorce. Children living in high-conflict, intact families experience difficulties similar to those experienced by children in divorced families (Yu, Pettit, Lansford, Dodge, & Bates, 2010). In particular, school problems may arise as a result of attention difficulties. Children who are worried or concerned about the stability of their parents’ relationship may be less able to focus, leading to poor peer relations and behavioral problems at school (Bascoe, Davies, Cummings, & Sturge-Apple, 2009).

2. **Disorganized parenting practices**, which may occur during divorce as parents are coping with their own distress, play a role in children’s social and cognitive functioning (Forehand, Thomas, Wierson, Brody, & Fauber, 1990; Hadfield et al., 2018). Parents who once were authoritative may become overwhelmed by their own problems, have few cognitive resources available for their children, and become lax in their monitoring and supervision of children (Hetherington, 1991; Nair & Murray, 2005). Children tend to have fewer difficulties following divorce when parental discipline is consistent across homes (Amato, Kane, & James, 2011).

3. **Decreases in family economics** also can have a negative impact on the functioning of families (Amato & Keith, 1991; Esmaeili, Yaacob, Juhari, & Mansor, 2011; Pong, 1997, 1998). Parents who were not employed outside the home may need to obtain employment, or parents who were employed may need to work longer hours or earn a second income in order to sustain the level of economics within the home (exosystem). Postdivorce economics may lead to the family moving to a smaller home or a lower socioeconomic status (SES) neighborhood (macrosystem), which may lead to poorer school achievement.

Some children—because of their developmental level, gender, personality, or relationships—may have a tougher time dealing with divorce than others do (Davies & Windle, 2001; Hetherington, Bridges, & Insabella, 1998), especially

- younger children,
- boys more than girls,
- children placed in custody with the opposite-sex parent (typically boys),
- children who have a difficult temperament or who have always been less able to adjust to change within their environment, and
- children who do not have a supportive relationship with an adult outside the immediate family (e.g., teacher, aunt, uncle, coach).
Although most difficulties occur around the time of divorce, children whose parents have been divorced for years may encounter problems again during adolescence; this is called the sleeper effect (Hetherington, 1993). Adolescents experiencing the sleeper effect exhibit difficulties such as drug and alcohol use, behavioral problems, poor school performance, and poor interpersonal relationships—including higher rates of divorce themselves later in life. The awakening of these difficulties is thought to occur because the period of adolescence introduces more opportunity to engage in drugs and alcohol use and to develop intimate relationships with peers and romantic partners, typically not a factor during childhood (Sarigiani & Spierling, 2011).

Some of the same family functioning issues surrounding divorce, such as family conflict and disruptions in parenting styles, continue to exist in remarried homes (Hadfield et al., 2018; Hetherington et al., 1998). Children’s and adolescents’ well-being suffers each time a transition or change occurs within the family. Remarriage adds a second transition to the family dynamics. As a result, adolescents from stepfamilies may have lower academic achievement and more involvement in delinquent acts than adolescents from single-parent homes (Amato & Keith, 1991; Hetherington, 1993; Sun & Li, 2009, 2011). Some children are particularly at risk for experiencing difficulties following remarriage (Hadfield et al., 2018; Hetherington et al., 1998; Sun & Li, 2009), including:

- older children,
- girls more than boys, and
- children with more difficult temperaments.

How do divorce and remarriage within the family interact with the school in the mesosystem? Children from both divorced and remarried families are more likely to have lower academic achievement and more problematic school behavior than children from intact families (Hadfield et al., 2018; Kurdek & Sinclair, 1988; Potter, 2010; Sun & Li, 2011). Understanding that family functioning may be the reason for such difficulties and that particular children may be more likely to experience these difficulties allows educators the opportunity to provide the support necessary to assist these children during family transitions. Children and adolescents who have a supportive adult relationship outside the family—such as a strong relationship with a particular teacher—are less likely to experience difficulties (Dornbusch et al., 1985; Hetherington, 1993). On the other hand, teachers also may unwittingly form negative expectations about students based on their individual characteristics and family circumstances. This could lead to a self-fulfilling prophecy—an unfounded expectation that becomes true simply because it was expected. For example, a teacher who is aware of the relationship between divorce and achievement may expect less of children of divorce, which can lead to behaviors that cause the student to achieve less in school.

Teachers in today’s classrooms encounter children from various family structures. Knowledge about family functioning and structure provides teachers with a context for understanding why some children may experience difficulties in the school setting. However, family background should not be used as a rationale to lower expectations for some students. Instead, it can provide information about who is most likely to need additional support and assistance within the microsystem of the school.
Peer Context

Describe how aspects of the peer context interact with the school system.

After families, peers are considered the second-most important microsystem influencing development. Let’s examine the development of friendships and peer groups among children and adolescents, as well as how peer status can interact with the educational experience (mesosystem).

Friendships and Peer Groups

Friendships are important because having friends during childhood and adolescence is related to several positive outcomes. For example, children with close friendships tend to have more social competence, greater self-confidence, and higher self-esteem, as well as fewer difficulties with school transitions and better academic performance (Bagwell & Bukowski, 2018; Bagwell & Schmidt, 2011; Hartup, 1996). Parents and teachers therefore should attempt to promote friendships among children and adolescents while understanding that friendships undergo changes throughout development.

Friendships among preschool-age children are qualitatively different from friendships among adolescents. In early and middle childhood, children base their friendships on moment-to-moment interactions. For example, two preschool-age children might be playing well together and consider themselves best friends, but a moment of not sharing or an unwillingness to submit to the other’s request can lead to anger, resulting in the children announcing that they are no longer friends. Within a few minutes, the children may resume interactions and once again announce that they are friends. Friendships among children in later childhood and early adolescence are based on more stable and similar qualities, such as typical play interests (we both like Barbies or video games) or typical qualities of sharing and kindness. In adolescence, friendships become based on common values and more complex interests, such as attitudes toward school, career aspirations, and achievement (Bagwell & Schmidt, 2011; Hartup, 1996). As a result, distinct peer groups begin to emerge during adolescence.

Over the past 25 years, much of the research on peer group formation during adolescence has been conducted and written by B. Bradford Brown and his colleagues (Brown, 1990, 2004; Brown & Braun, 2013; Brown & Klute, 2006). During middle school, groups of peers begin to form cliques and crowds. Clique is a small group of two to eight people who know each other very well. Cliques provide opportunities to learn social skills, discover how to communicate in interpersonal relationships, and, for some, practice leadership roles within small groups. Many times, these small groups have a social structure or place in which time is spent together. For example, one clique may hang out at the local restaurant, another may convene at the school, and another may gather at an adolescent’s home.

Clique members typically are very similar on a number of demographic characteristics, such as age, SES, and race, as well as on shared activities (e.g., dress and music) and values (Ellis & Zarbatany, 2017; Hamm, 2000; Hartup, 1996). For example, members of a clique typically have similar beliefs about the importance of school and academic achievement, as well as similar levels of involvement in delinquent behavior and substance use (Becker & Curry, 2014; Brechwald & Prinstein, 2011; Jones, Audley-Piotrowski, & Kiefer, 2011). In addition, cliques typically include same-sex friends during middle school but develop into mixed-sex groups during high school (Xie & Shi, 2009). The similarities among clique members may be due to the following processes:

- **Peer selection process**—adolescents seeking out others similar to themselves
- **Peer socialization process**—dissimilar adolescents becoming more similar over time
In contrast to the small, interaction-based peer cliques, **crowds** are larger, reputation-based peer groups that typically have common labels across school districts and vary across gender (Kindermann & Gest, 2018; Sussman, Pokhrel, Ashmore, & Brown, 2007; Youniss, McLellan, & Strouse, 1994). They include the following:

- **Populars/preps (elites)**—having many friends, being well-known, being cool, being highly social (more likely to be girls than boys)
- **Jocks (athletes)**—participating in sports and physical activities (more likely to be boys than girls)
- **Brains/nerds (academics)**—being smart and showing high academic performance (equally likely to be girls or boys)
- **Normals (others)**—being average or normal, being cool, being highly social (more likely to be girls than boys)
- **Druggies/partiers/burnouts (deviants)**—using drugs, alcohol, and physical aggression (more likely to be boys than girls)
- **Loners**—belonging to a small group, having few friendships, being nonconforming (more likely to be girls than boys)

By ninth grade, most adolescents agree on who belongs to which crowd within the school system, and these labels provide adolescents with a basis for identity development—that is, understanding who they are and how they fit into society (Brown & Larson, 2009; Newman & Newman, 2001). Crowds tend to be hierarchical during middle school and hence are related to self-esteem, or how positively individuals feel about themselves. Adolescents in higher status crowds such as preps and jocks typically have higher self-esteem than individuals in lower status crowds such as druggies (Helms, Choukas-Bradley, Giletta, Cohen, & Prinstein, 2014; Prinstein & La Greca, 2002). The hierarchy of crowds changes over time, and membership within these crowds is more easily changed during the later years of high school, such that individuals may be members of more than one crowd (Youniss et al., 1994).

The interaction between the peer and school microsystems is another example of the mesosystem in Bronfenbrenner’s bioecological model. As discussed earlier, children with friends tend to have better school performance and to handle school transitions (e.g., the move from elementary to middle school) better than children who lack friendships. Similarly, affiliation with cliques and crowds during adolescence promotes social skills and identity formation, both of which are related to higher levels of academic achievement (Denham et al., 2003; Flashman, 2012; Jones et al., 2011). As a result, teachers should attempt to foster friendships among peers early in students’ development and should continue to support peer group formation throughout adolescence.

Can you list the friends who were in your clique during high school? Which crowd label best represents you during high school? How did those peer groups help or hinder your academic progress?

**Peer Statuses**

In addition to friendships and peer groups, the social status of individuals among their peers is an important factor in the microsystem of peers. Peer social status typically is determined by both socially appropriate behaviors (e.g., caring, leadership skills) and aggressive
behaviors. Positive social behaviors and aggression are important determinants of peer status across developmental levels—with preschool-age children as well as elementary, middle, and high school students—and among rural African American adolescents (Burr, Ostrov, Jansen, Cullerton-Sen, & Crick, 2005; Farmer, Estell, Bishop, O’Neal, & Cairns, 2003; Rose, Swenson, & Carlson, 2004).

In discussing the peer context, aggression typically sparks ideas of physical or overt aggression, such as fighting, with the intent to harm another physically. Research has defined a second type of aggression: relational aggression (Crick & Grotpeter, 1995). Relational aggression refers to behaviors specifically intended to damage another child’s friendships, social status, or feelings of inclusion in a peer group. Such behaviors include gossiping, rumor spreading, and excluding people as a way to control them. In childhood and adolescence, boys are more likely to use overt aggression, whereas girls are more likely to display relational aggression, especially during middle school (Crick & Grotpeter, 1995; Gangel, Keane, Calkins, Shanahan, & O’Brien, 2017; Mathieson & Crick, 2010).

Children and adolescents have been categorized into several peer statuses based on socially appropriate and aggressive behaviors with peers: popular, rejected, or neglected.

**Popular.** Using different approaches, researchers have determined that there are actually two separate forms of popularity (Brown & Larson, 2009; Cillessen & Rose, 2005). In the first type, sociometric popularity, students nominate peers whom they most like and most dislike within their classroom or grade. In perceived popularity, students nominate peers who are the most popular or “cool” and those who are the least popular or “cool.” Both sociometric and perceived popularity include characteristics of positive behavior, such as being cooperative and/or displaying socially appropriate behaviors. Unlike individuals with sociometric popularity, those with perceived popularity sometimes receive high numbers of nominations both for being liked and for being disliked—meaning that their popularity is controversial. The main difference between the two types of popularity, however, appears to be whether these peer status positions include displays of aggression. Sociometric popularity is not related to aggressive behaviors, whereas individuals with high levels of perceived popularity are likely to show higher levels of overt or relational aggression (LaFontana & Cillessen, 2002; McDonald & Asher, 2018; Puckett, Aikins, & Cillessen, 2008). However, relational aggression appears to play a more important role in peer status than does overt aggression, and more so with girls’ perceived popularity than with that of boys (Ettekal & Ladd, 2015).
Relational aggression can be used to obtain or maintain high peer status, which is more likely to occur following the transition from elementary school to middle school (LaFontana & Gillessen, 2002; Li & Wright, 2012). Middle school students with advanced social skills may be more effective in delivering threats of friendship withdrawal, excluding others from the peer group, or orchestrating rumor spreading (Adler & Adler, 1998; Gangel et al., 2017; Xie, Cairns, & Cairns, 2005). A specific type of relational aggression is referred to as cyberbullying, or intentional acts of relational aggression using electronic formats such as texting and social media. Similar to the broader category of relational aggression, recent research has found that the specific form of cyberbullying is also related to perceived popularity, but not sociometric popularity (Nesi, Choukas-Bradley, & Prinstein, 2018; Wegge, Vandebosch, Eggermont, & Pabian, 2016).

Rejected. Not all individuals who display relational or overt aggression are perceived as popular (Rose et al., 2004; Vaillancourt & Hymel, 2006). Individuals who display aggressive behaviors but do not display the positive behaviors of cooperation and social skills typically are considered rejected youth (Closson & Hymel, 2016; Zimmer-Genbeck et al., 2013). Rejected youth tend to be less well-liked by peers, including those within their own peer clique, and are members of smaller peer cliques (Bagwell, Cote, Terry, & Lochman, 2000). In addition, violence may beget violence in rejected students. For example, rejection status and the use of relational aggression are related to increases in relational aggression for girls. Similarly, rejection and overt aggression are related to increases in overt aggression for both boys and girls (Werner & Crick, 2004). Many consider a pattern of aggressive and coercive behavior over time to be bullying. Yet being the victim of aggression also may lead to higher levels of aggression, meaning victims of aggression may themselves become aggressive (Casper & Card, 2017). For example, one study of African American eighth graders found that students who were the victims of overt or relational aggression by their peers also were more likely to be aggressive themselves (Sullivan, Farrell, & Kliwier, 2006). Unfortunately, students with mild disabilities may be more likely to be perceived as bullies and victims as compared with general education students who are more likely than gifted students to be perceived as bullies or victims (Bear, Mantz, Glutting, Yang, & Boyer, 2015; Estell et al., 2009).

Neglected. The final category of peer status includes those individuals who are neither popular nor aggressive but rather are considered neglected youth. Individuals who are considered neglected typically are not nominated as liked or disliked and do not show high rates of overt or relational aggression (Brown, 2004). Because little research evidence is available concerning this category of peer status, less is known about related characteristics among these individuals.

Think about people at your high school who would have been considered popular because they were well-liked and those who were popular but not well-liked. Did aggressive behaviors contribute to these popular students being disliked by their peers?

How does peer status interact with the school in the mesosystem? Students perceived as popular but not necessarily well-liked tend to be less academically engaged, whereas students who are well-liked by peers are considered to be more academically engaged (de Bruyn & Gillessen, 2006; Ladd, 2013). Similarly, adolescents who experience victimization or peer rejection are likely to have lower school performance and more psychological distress (Beeri & Lev-Wiesel, 2012; Bellmore, 2011; Platt, Kadosh, & Lau, 2013; Risser, 2013). In particular, relational aggression has a direct link to social anxiety, and cyberbullying has been found to
have a unique connection to adolescent depression (Landoll, La Creca, Lai, Chan, & Herge, 2015). Because popularity and aggression are related to academic outcomes and psychological difficulties, teachers need to identify and eliminate aggressive behaviors. However, research has found that teachers are more likely to identify overt, physical aggression than relational aggression not only in the United States but in other countries as well (Chen, Wang, & Sung, 2018; Migliaccio, 2015). In addition, teachers’ reactions are more likely to include discipline for overt aggression than relational aggression (Yoon, Sulkowski, & Bauman, 2016). Teachers were more likely to discipline overt, physical aggression than relational aggression.

We might assume that teachers have more difficulty identifying acts of relational aggression and determining who is to blame because the behaviors are less obvious and more indirect. For example, teachers might clearly see overt aggression when one child hits, kicks, or slaps another child, but they might not “see” the rumor spreading or gossiping behaviors characteristic of relational aggression. Given the link between relational aggression and negative outcomes, teachers should be on the lookout for instances of relational aggression and react as swiftly to these aggressive behaviors as they do to instances of overt aggression. An intervention program for rural schools has been successful in improving teachers’ abilities to identify students involved in bullying (Farmer, Hall, Petrin, Hamm, & Dadisman, 2010). Education and training of school personnel on the significance of relational aggression may also see benefits.

Broader Contexts

Explain how broader contexts of development influence microsystems and individual outcomes.

Although the microsystems of families, peers, and schools most directly influence children, Bronfenbrenner’s model also includes systems that have less direct influence on the developing individual—the exosystem and the macrosystem.

Parental Employment

In today’s economy, both parents typically are employed outside the household, making parental workplaces a common element of a student’s exosystem—that is, an indirect influence on development. Thirty to forty years ago, as more mothers began rejoining the workforce, researchers examined the effects on child and adolescent outcomes and did not find negative results. Instead, a number of positive outcomes were found, particularly for girls (Hoffman, 1974):

- Girls with working mothers tended to have higher achievement aspirations or greater desire to excel academically, as well as higher achievement in school, compared to girls with nonworking mothers.
- Girls with working mothers tended to have higher intelligence scores (IQ scores) compared to girls with nonworking mothers.
- Children of working mothers were not more likely to be involved in delinquent acts than were children of nonworking mothers.
- Children of working mothers had more household responsibilities than did children of nonworking mothers, a situation related to positive, rather than negative, outcomes, such as advanced social development.

More recent research on parental employment as an exosystem suggests that having both parents employed outside the home does not generally affect children in either a negative
or a positive manner (Lombardi & Coley, 2017; Lucas-Thompson, Goldberg, & Prause, 2010). For example, working mothers spend slightly less time with their children than do nonworking mothers; however, fathers whose wives are employed become more involved in child rearing than do fathers whose wives are not employed outside the home. In short, parental employment appears to have little impact on children and may even be related to positive academic achievement, aspirations, and intelligence among girls.

Parental satisfaction or job stress may have an indirect influence in the lives of children and adolescents. Data from the 1970s suggested that children of working mothers who were satisfied with their jobs had more positive outcomes than did children of unemployed mothers who preferred to work or working mothers who did not want to work (Hoffman, 1974). Similarly, more recent research suggests that job stress may be related to parenting practices. Higher levels of job stress may lead to a mother’s withdrawal from her child and increased family conflict (Crouter & McHale, 2005; Vahedi, Krug, Fuller-Tyzkiewicz, & Westrupp, 2018). In contrast, mothers who view their jobs as enriching their family life may actually display more optimal, warm parenting practices (Cooklin, Westrupp, Strazdins, Giallo, Martin & Nicholson, 2015).

Because parental satisfaction and job stress are components of the exosystem, the interaction with the school system is less direct, but it is not completely absent. Parents who are employed and experience high levels of job stress and dissatisfaction may exhibit less effective parenting practices, which can influence the academic achievement of their children (see Figure 2.2). Teachers might not be able to change the employment, job satisfaction, or parenting styles of parents, but they need to understand that this aspect of the exosystem indirectly affects the students in their classrooms.

A more direct influence of parental employment on the school system is the need of many families to use child care facilities. Child care facilities are considered a microsystem within a child’s life, but they exist within the broader context of parental employment. Approximately 50% of mothers with children under 1 year of age and 75% of mothers with school-age children use child care facilities (Scarr, 1998). A variety of options for child care are available, including home or center care, licensed or unlicensed care, and for-profit or not-for-profit organizations. The amount of time spent in child care is not as important as the quality of care (McCartney et al., 2010). Quality of care from birth through age 4 can have positive effects on academic achievement through adolescence (Vandell, Burchinal, & Pierce, 2016).

Quality care typically means a safe environment with warm, supportive interactions that enhance children’s development. Specific characteristics of quality care include the following:

- Small group sizes within homes or classrooms
- Low teacher-to-child ratios within classrooms
- Qualified teachers or child care providers with early childhood education or child development training
- High stability or low turnover rates among teachers

**FIGURE 2.2**

Exosystem’s Relevance. This graphic shows the indirect influence of parental employment on academic achievement.
Although quality of care is an important microsystem to consider, other factors appear to have an even greater influence on later development. A government-funded study has examined child care since 1991, following children from birth through sixth grade. The most recent findings indicate that parenting practices as well as a child’s temperament are better predictors of later cognitive and social development outcomes than are experiences in child care facilities (Belsky et al., 2007; Burchinal, Lowe Vandell, & Belsky, 2014; Pluess & Belsky, 2010). Broader contextual factors may also have a stronger impact on the cognitive and academic performance of children than quality of child care. For example, although quality of child care is related to language and cognitive development in children, this connection can be explained by family income and SES because families living in higher SES neighborhoods have better access to quality child care (Brooks-Gunn, Han, & Waldfogel, 2002; Hatfield, Lower, Cassidy, & Faldowski, 2015; Scarr, 1998). Figure 2.3 depicts the complex nature of how microsystems, mesosystems, exosystems, and macrosystems together influence an individual.

Cultural Factors
Like parenting practices (microsystem) and parental employment (exosystem), even broader contextual factors—SES (macrosystem)—can shape child and adolescent development. More specifically, high-poverty school systems and highly segregated African American school systems can have a negative impact on educational outcomes beyond individual differences (Borman & Dowling, 2010; Klugman & Lee, 2018). Similarly, cultural values regarding education can play a major role in children’s and adolescents’ academic performance. Almost all parents want their children to excel academically and become successful, yet parental expectations may vary based on ethnicity and SES. For example,
Asian American students report that their parents have higher expectations and standards for school success than parents of White American students or Latino students (Chen & Stevenson, 1995; Naumann, Guillaume, & Funder, 2012).

African American students also report that their parents have high expectations for them, but the expectations are not as high as the parents of White American students (Ogbu, 2003).

These different expectations among parents may reflect their beliefs about the benefits of education. For example, African Americans are more skeptical of how helpful education will be because many believe that even with an education their children will be discriminated against and their opportunities for success will be limited (Hill, Witherspoon, & Bartz, 2018; Ogbu, 1994, 2003). Hence, African American students have fewer negative views of the future when they think about not being educated, whereas Asian American students have a greater fear of negative outcomes or failure when they think about not being well-educated (Steinberg, 1996).

Broader cultural beliefs about the benefits of education may lead to parents being either more or less involved in their child’s education. The connection between parental involvement and broader cultural beliefs is important because higher parental involvement is consistently linked to higher academic achievement (Boonk, Gijselaers, Ritzen, & Brand-Gruwel, 2018; Choi, Chang, Kim, & Reio, 2015). African American parents have been found to participate less in school functions—such as parent–teacher organizations, workshops, and open houses—than White American parents and to be less likely to help their children with homework or check that homework has been completed (Ogbu, 2003). Lower parental involvement among African American parents most likely results from a misconception that the school does not need their help to educate their children, with the result that these parents may not understand the importance of their role at school or as homework facilitators (Ogbu, 2003; Steinberg, 1996). In contrast, Asian Americans are highly invested in the school system, and Asian American students spend substantially more time on homework than do White Americans (Steinberg, 1996). In short, families (microsystem) are influenced by cultural beliefs (macrosystem), particularly with regard to parental involvement in education and interactions with the school setting (mesosystem).

Teachers and educators need to be reminded that differences among beliefs in and support for education exist not only between ethnic groups but also within ethnic groups. The value each student’s family places on education should be considered outside of his or her ethnicity. As with many of the contexts of development we have discussed, teachers may have little ability to change the cultural values or beliefs held by their students’ parents. Teachers should, however, continue to provide encouragement and support for the importance of education among all students, regardless of race, ethnicity, or SES.

### SUMMARY

1. **Describe Bronfenbrenner’s bioecological theory.** Bronfenbrenner’s bioecological theory emphasizes the interaction between the biological person and the environmental systems, including microsystems, mesosystems, exosystems, macrosystems, and the chronosystem. Research examining families and peers has relied on this theory to help explain developmental outcomes.

2. **Describe how parenting practices and family transitions interact with the school system.** The four parenting practices vary by level of control and responsiveness. Authoritative parenting appears to be most beneficial to children’s and adolescents’ academic achievement and school performance. Although children from both divorced and remarried families are more likely to have lower academic achievement and to exhibit more problem behaviors in school than children from intact families, not all such children experience difficulties. Difficulties do tend to increase with each family transition, meaning that academic achievement may be lower in remarried
families than in single-parent families. Teachers should use information about the family context to help them understand children’s difficulties and provide additional support to children and families.

3. **Describe how aspects of the peer context interact with the school system.** Children with friends or peer group affiliation tend to have better school performance than do children without friends or peer ties. In addition, children or adolescents who are well-liked by their peers are more likely to be engaged in school than are those who are disliked or neglected by peers. Because of the link between overt aggression and negative outcomes, as well as between relational aggression and negative outcomes, teachers need to identify both overt and relational aggression.

4. **Explain how broader contexts of development influence microsystems and individual outcomes.** The presence of an exosystem such as parental employment is not as important to a child’s development as the indirect influence on the child via job satisfaction and stress. In addition, the presence of parental work outside the home may lead to an additional microsystem in the child’s life—child care—but the child’s development may be influenced more by the macrosystem of SES and neighborhood. The macrosystem also varies by ethnicity and cultural values such that parental expectations and support for educational achievement may vary across and within ethnic groups to help explain differences in academic performance among students.

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**KEY CONCEPTS**

- authoritarian parenting, 33
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- cliques, 37
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- cyberbullying, 40
- exosystem, 31
- macrosystem, 31
- mesosystem, 31
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- overt aggression, 39
- parenting practices, 33
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**CASE STUDIES: REFLECT AND EVALUATE**

**Early Childhood: Crybaby**

These questions refer to the case study on page 22.

1. Based on the information provided in the case study, speculate on the parenting strategies most likely used by Annie’s mom and Zada’s parents.
2. How might the family structures of Annie and Zada influence their behavior?
3. How developmentally appropriate is Annie’s comment about not being best friends with Zada?
4. How might Tyler’s aggressive behavior become a problem with peers as he continues into elementary school?
5. How does the employment of Annie’s and Zada’s parents play a role in their development?
6. How does the value placed on education differ in Annie’s and Zada’s homes? What factors might account for these differences?

**Elementary School: Team**

These questions refer to the case study on page 24.

1. How might Bronfenbrenner’s bioecological theory be important in understanding Kashi’s experiences?
2. Based on the information provided in the case study, speculate on the type of parenting strategy most likely used by Patricia’s mom, Mary.
3. In what specific ways might the divorce of Kashi’s parents have influenced her behavior?
4. What does Kashi’s “team” most likely refer to regarding peer groups?
5. Based on the information provided in the case study, is Zach correct in labeling Bill a bully? Why or why not?
6. Does Ms. Barone handle the girls and boys differently? Based on the research presented in the module, how are teachers’ reactions typically different based on types of aggression and children’s gender?

**Middle School: Basketball Star**

These questions refer to the case study on page 26.

1. What parenting strategy is most likely used by Sierra’s dad? Darla’s dad?
2. How might the family structures of Sierra, Darla, and Mark influence their behavior?

3. Identify an example of a clique and a crowd in the case study. Would these be expected to be formed during middle school? How might they change over the next several years?

4. What are the peer statuses of Jill, Sierra, Darla, and Mark? Give specific examples of their behavior that indicate these statuses. How might their peer status affect their school performance?

5. What type of aggression is used by Jill and Sierra? By Claudia? By Mark? Why might teachers react differently to aggressive behaviors displayed by these students?

**High School: Steal, Cheat, and Fight**

These questions refer to the case study on page 28.

1. How could the content of these e-mails be combined to better reflect the bioecological model?

2. Ms. Presley believes that the family is responsible for these behaviors. To which aspects of family life might she attribute these behaviors?

3. How might Ms. Presley be accurate and inaccurate in her descriptions of divorce, remarriage, and parental employment?

4. What examples of cliques and crowds are given by the teachers and staff? Are these typical groupings in a high school? Why or why not?

5. What examples of relational and physical aggression are given by the teachers and staff? Based on the research presented in the module, is the gender of the adolescent who is displaying a particular type of aggression in the case study typical or atypical?