1 A Historical Overview of the Field

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In this chapter, we provide a relatively brief description of the paths that shaped research on parental monitoring and adolescents' information management. As researchers explored and examined these constructs in ever greater detail, the landscape of these areas morphed into increasingly broader and more detailed accounts of the interplay between parents' attempts to regulate their adolescents' behavior and adolescents' responses. Here, we introduce readers to the constructs and frameworks that have come to represent monitoring and information management research. This includes related topics, probed by researchers in their diverse attempts to better understand parent and adolescent behaviors. More specifically, we start with describing the beginnings of the collective body of research referred to in this chapter – challenging the literature on parental monitoring. We then move to the subsequent groundswell of research on adolescent information management, through to challenging assumptions about monitoring specifically and parental control in general. We end the chapter with some notes about how this broad reexamination of monitoring and parental control has led to theory development and some suggestions for how to continue this work. We do not go into great depth about the topics we introduce, as much is covered in other chapters of this handbook. Instead, we refer you to those chapters for more detailed accounts.

Where It All Began

In the late 1990s, several researchers (including the authors) started to present and publish research that was instigated by their dissatisfaction with the research on parental monitoring. Conceptualized as a parenting practice involving parents' attempts to gain knowledge of their youths' whereabouts and activities when away from adults, monitoring was framed as a behavior that protected against delinquency. Monitoring was viewed from several theoretical positions. Some saw it as representing the "demanding" dimension of Baumrind's parenting styles (e.g., Baumrind, 1978; Steinberg et al., 1989, 1991). Others described it as a form of behavioral control (Barber, 1996), drawing attention to how it differed from psychological control. Prevention/intervention programs had been designed and promoted with focus on increasing parental monitoring (Dishion & McMahon, 1998; Dishion et al., 2003).

The notion that parental monitoring would reduce youth engagement in delinquent behaviors spread. It was popular enough among researchers, practitioners, and the general public to gain credence at global levels. The World Health Organization included measures of monitoring in their assessments of child development, measures that were of questionable use, because parents' monitoring behaviors were not actually assessed. Television advertisements advised parents to monitor with catchy voice-overs of parents commenting on scenes of adolescents and friends smoking, "My kid doesn't smoke. How do I know? I *ask*!" or implied concerns that adolescents were not being monitored: "It's 10 o'clock – Do you know where your children are?"

Against the backdrop of surging popularity, the theoretical and empirical record was fraught with untested assumptions, many of which were common to the perspectives described. These assumptions included the expectation that parental monitoring – a parent-directed process – unidirectionally affected adolescents' delinquent behavior. This was dubious, given research on what adolescents contribute to the parenting process. This includes research showing that parents react to their children's characteristics (child effects, Bell, 1968), that parenting is a bidirectional processes, interdependent among family members (Lollis & Kuczynski, 1997), and directed by adolescents (e.g., transactional models, Fiese & Sameroff, 1989). Moreover, up until the time the monitoring construct was being questioned, most of the research was based on cross-sectional data, which severely limited interpretations of directionality and causality.

Reexamining Monitoring, Measuring Information Management

To walk readers through the developing areas of research, we begin by describing these assumptions and the ways that researchers were showing the problems that the assumptions created. We start with the definition of monitoring and how it was measured. In the original formulations, monitoring was defined as a parenting behavior directed at finding out what adolescents were doing when they were not being directly supervised by parents or another adult. Described as "attention to and tracking of the child's whereabouts, activities, and adaptations" (Dishion & McMahon, 1998, p. 61) or "the extent the parent is aware of the child's whereabouts, his deviant behavior in and outside of home, and the degree the parent supervises the child's activity" (Patterson & Dishion, 1985, p. 69), the idea was that parents monitor to find out whether their adolescents' unsupervised whereabouts, companions, and activities conformed to parents' expectations and directives. Theoretically, parents who found out that their adolescents were with disreputable companions or engaged in misbehavior could then correct the behavior (possibly through punishment) or reduce contact with problematic peers (Dishion et al., 2003; Mounts, 2002). However, in most studies, monitoring was measured by asking adolescents "How much do your parents REALLY know about" their activities and

whereabouts (Steinberg et al., 1994, p. 1061). Alternatively, parents could be asked how much they knew about the same issues. Some compared what parents and adolescents reported about adolescents' behavior (e.g., Crouter et al., 1990). The problem with these measures of parents' knowledge is that they did not tap parental behaviors; instead, they assessed cognitions. The lack of concordance between definitions and measures revealed the unstated and untested assumption that parents who monitored would know where their adolescents were, whom they were with, and what they were doing. By extension, this measurement also implied that parents who do not monitor will not have that knowledge. In essence, in this research, monitoring was equated to parental knowledge. Both assumptions were concerning.

Researchers began questioning these assumptions, asserting that knowledge was not equal to monitoring (Darling et al., 2006; Kerr & Stattin, 2000; Marshall et al., 2005; Tilton-Weaver & Galambos, 2003). From the standpoint of researchers considering child effects and bidirectionality, the idea that adolescents would passively accept and comply with parents' demands failed to account for research showing noncompliance even in the toddler years (e.g., Kuczynski & Kochanska, 1990).

With other researchers, we argued that adolescents played an active role in determining what their parents knew or did not know. The studies began, with new measures created to assess actual monitoring behaviors (Kerr & Stattin, 2000). This work, carried out with a sample of fourteen-year-old Swedish boys and girls, included parents' requests for information (i.e., solicitation) and rules intended to gain information about adolescents' whereabouts and activities (called parental control by Kerr & Stattin, 2000; monitoring rules by Tilton-Weaver et al., 2013). These pieces of research drew attention to another fact: Monitoring was multidimensional, rather than a single factor.

Importantly, monitoring also differs depending on what aspect of adolescents' lives is being examined. Drawing from research on parent–adolescent conflict, Smetana and colleagues (Smetana et al., 2006, 2009; also see Chapter 3 in this volume) convincingly showed that the social domain had to be considered, as lower to middle class US parents and adolescent boys and girls often disagree about what parents should attempt to regulate. This research, framed by social-cognitive domain theory (Turiel et al., 1991), showed that attempts to monitor and regulate behaviors that adolescents viewed as personal could generate resistance and efforts to undermine parents' monitoring. Thus, our notions of the scope of monitoring behaviors became more nuanced.

At the same time, other measures were created to tap adolescents' willingness to tell their parents about issues pertinent to monitoring (Marshall et al., 2005) and their actual disclosure (Kerr & Stattin, 2000). Collectively, we and other researchers asked early, middle, and late adolescents from the United States and Europe to tell us what their parents knew and why they knew it; what they were willing to tell their parents and what kinds of information they were unwilling to provide; how they provided or withheld information from their parents (e.g., Darling et al., 2006; Finkenauer et al., 2002; Marshall et al., 2005; Smetana

et al., 2006). We called this *information management* (Marshall et al., 2005) in recognition of what studies were revealing: Adolescents actively and strategically manage the information their parents can gain from them.

This body of research on information management expanded to include other forms of revealing, including providing partial information (Smetana et al., 2009), disclosing only if asked (Laird et al., 2013), and forced disclosure (Kearney & Bussey, 2015), in recognition that disclosure of monitoring-relevant information did not have to be "all or nothing" and that disclosure was not always voluntary. The latter is an important distinction, as Kerr and Stattin mistakenly claimed that their measure assessed voluntary disclosure, when adolescents' willingness to disclose was assessed in only one of their items (Stattin & Kerr, 2000).

The first record of measures involving volition was by Waizenhofer and colleagues (Waizenhofer et al., 2004); asked adolescents in the United States (aged 10–17 years) about their provisions of information without being asked (calling it passive monitoring). In addition, researchers began to either refer to Kerr's measure of disclosure as "self-disclosure" or using self-disclosure scales to tap what adolescents told parents about their lives. This conflated disclosure relevant to monitoring with a different interpersonal process. This happened often enough that it prompted us, with Darling, to provide a theoretical review where we sought to delineate the differences and commonalities between disclosure related to monitoring issues (i.e., routine disclosure) and self-disclosure (Tilton-Weaver et al., 2014).

In addition to new measures of disclosure, researchers were dealing with the nuances of concealing, distinguishing between lying (first used in Marshall et al., 2005), keeping secrets (identified by Frijns et al., 2010 as part of Kerr & Stattin's measure of disclosure), and throughavoiding talking about an issue (Cumsille et al., 2010). Lying was largely construed as provisions of false information, in an attempt to deceive (Marshall et al., 2005), but is now recognized as including lying by omission, which overlaps conceptually with keeping secrets (to read more about these issues, see Chapters 11–14, this volume).

Qualitative analyses also revealed that middle adolescents living in the United States used information management to serve their own goals (Marshall et al., 2005; Tilton-Weaver & Marshall, 2008). Moreover, these goals were sometimes, but not always, about avoiding punishment for engaging in behaviors that they knew their parents would not like. Adolescents indicated they would disclose when they felt that their parents had jurisdiction over the behavior or wanted to make sure their parents were available for instrumental or social support. Others indicated they would provide information only if their parents asked or otherwise looked for information. They would provide less information (or partial information) when they deemed it unnecessary (e.g., going out with friends to known places, with an expected time to return), but also to evade unwanted parental control. Thus, *what* they revealed or concealed, as well as *how much* and *when* they revealed or concealed, was tied to their goals.

Others were showing similarly rich pictures, that early and middle adolescents' information management was also predicated on their belief that their parents' monitoring was legitimate and that they were obligated to provide information (Smetana et al., 2006). Clearly, the picture was more complicated than originally described.

Tests of the assumption that measuring knowledge would be equal to measuring parental behavior were also underway. The tests were relatively simple: What predicted parental knowledge? Parental monitoring or adolescents' information management? At first, research findings from samples from the United States, Chile, and the Philippines pointed to knowledge being predicated on adolescents' providing information – parents knew when adolescents revealed, but not if adolescents concealed (Darling et al., 2006, 2009). In essence, parents who tried to monitor did not always gain information. Later evidence with a large sample of Chilean adolescents would also show that some disclose virtually everything to their parents, even those who have not been actively monitored (Cumsille et al., 2010). The conclusion was that parental knowledge was a poor proxy for monitoring behaviors.

Researchers turned then to trying to understand how parents gained knowledge, other than from adolescents' disclosure. Could they look for information elsewhere and expect to gain it? Looking at sources of knowledge other than (or in comparison to) adolescents' revealing or concealing, some researchers found that parents might be able to gain information from each other (as adolescents may disclose to one, but not both; Waizenhofer et al., 2004). Researchers explored the conditions under which monitoring led to disclosure. When examined with better measures, accounts became more nuanced, showing conditions under which adolescents were more or less inclined to provide information (e.g., when parents are supportive, Baudat et al., 2020). Readers can find an up-to-date account of the sources of parental knowledge in Buchanan and Selçuk (Chapter 6, this volume). As researchers were documenting the variation in adolescents' information management, researchers were also exploring to whom adolescents disclosed, documenting that disclosures to siblings were part of family-level processes involved in monitoring (Campione-Barr et al., 2015). They found what might be a developmental shift in how much adolescents in the United States disclosed to siblings relative to mothers, where early adolescents disclosed more to mothers than siblings, middle adolescents disclosing more to mothers only about personal and prudential issues, and older adolescents disclosing equally to mothers and siblings. They also found that disclosure to siblings about personal and multifaceted issues were sometimes linked to symptoms of depression, depending on gender, birth order, and who was disclosing to whom. For example, boys disclosing to sisters reported fewer symptoms, but girls whose brothers were disclosing reported more symptoms. Nondisclosure in family and other relationships have also been compared in ethnically diverse US families (Guo et al., 2022), where age-related differences again emerged, with older adolescents keeping more information from family members than younger. This topic is covered in the chapter by Campione-Barr and colleagues (Chapter 14, this volume).

Researchers were also interested in how parents reacted to disclosure, particularly when adolescents disclosed about misconduct. Unsurprisingly, angry reactions do not seem to help (see for example, studies of middle adolescents in Sweden: Kerr & Stattin, 2003; Tilton-Weaver et al., 2010; see also Main & Disla, Chapter 9, this volume).

Monitoring and Delinquent Behavior

The focus on reinterpreting monitoring also meant that attention was given to the assumption that monitoring would prevent or reduce delinquent behavior and association with delinquent peers. Unfortunately, many of the studies attempting to show that monitoring was related to reductions in delinquent behaviors used the knowledge measure (e.g., De Kemp et al., 2006) and/or used data collected in a single wave (e.g., Bowman et al., 2007; Caldwell et al., 2006), even after these limitations were criticized. Others attempted to show that monitoring increased knowledge, in turn reducing delinquency (e.g., Fletcher et al., 2004), but assessed monitoring and knowledge within the same wave of data collection, calling directionality into question.

The need for longitudinal data became very apparent at this point, when researchers were questioning the directionality of the links between monitoring, information management, and delinquent behaviors. In fact, one of the enduring problems is that the statistical models being tested often do not fully account for the possibility of bidirectionality. Part of resolving this issue is developing more sophisticated ways of modeling directionality, which readers can find addressed in Chapter 5 by Keijsers in this handbook.

Indeed, when researchers began to use more appropriate measures and longitudinal data, a different picture emerged. This is in part because researchers were looking at the potential for bidirectional associations among monitoring, information management, and adolescent adjustment. Assessing developmental patterns of monitoring, information management, and delinquent behavior from ages thirteen to sixteen years, Keijsers and colleagues (2009) found that parents in the Netherlands relaxed their control over time as delinquent behavior increased and disclosure diminished. These temporal patterns suggest that coordination between parents and adolescents, rather than monitoring itself, offer protection from engagement in delinquency. However, others modeling a single direction find that there may be some conditions under which monitoring works. For example, Laird and his colleagues (Laird et al., 2010) found that from the perspectives of early adolescents from the United States, mothers' solicitation was related to decreases in delinquent behavior when adolescents either reported having a lot of unsupervised time or when their beliefs about parents' legitimacy were weak.

Protection from engaging with delinquent peers was also proposed as a means by which parental monitoring reduces delinquent behaviors (Fletcher et al., 1995) or allows parents to intervene in peer relationships when they

became aware of them. However, many used the knowledge measure (e.g., Mounts, 2002), mixed monitoring and disclosure items (e.g., Barnes et al., 2006), or used data collected in a single wave (e.g., Kiesner et al., 2010).

Examining the connections among parental monitoring, delinquency, and peers introduced other forms of bias. Many have used adolescents' reports on their friends' delinquency (e.g., Barnes et al., 2006). This bias is problematic, as adolescents tend to estimate their friends' behaviors as more similar to their own than they are in reality (Kandel, 1996; known as assumed similarity bias, Cronbach, 1955). Kandel (1996) also pointed out that peer influence is often overestimated when the selection of friends is not separated from the influence of friends. These issues called for examining the question with reports taken from friends and with statistical models that can separate selection from influence (e.g., social network analysis). In research using such methods, there has been only limited support for the idea that monitoring reduces contact with delinquent peers, at least among community samples of Swedish adolescents (Tilton-Weaver et al., 2013). For example, no support has been found for the belief that soliciting information reduces the selection or influence of delinquent peers. Monitoring rules were not linked to peer influence and only linked to selection of less delinquent peers among older adolescent cohorts. Much like research on delinquent behavior, in younger adolescent cohorts, monitoring rules were related to selecting more delinquent peers. Like other studies, these results suggest that monitoring may not be particularly effective and could have unintended consequences. Another construct examined was parents' communicating disapproval – testing the mechanism by which monitoring and knowledge should reduce peer selection or influence (Tilton-Weaver et al., 2013). This too was mixed in terms of potential effectiveness. Among middle adolescents, communicating disapproval increased the likelihood of befriending a delinquent peer. By contrast, among late adolescents communicating disapproval reduced the influence of delinquent peers, but only for those reporting higher levels of delinquent behavior. Among those who reported lower rates, communicating disapproval was related to increased peer influence.

In other research, early to middle Irish adolescents' secrecy contributed to shaping peer relationships related to delinquency (McCann et al., 2019), rather than parental control. Together, these pieces of research suggest that monitoring has limits to its effectiveness and is not as broadly useful as implied by the early research using knowledge measures.

Broadening Horizons

Collectively, many of the researchers engaged in studying parental monitoring concluded that the associations previously found by researchers examining parental knowledge and delinquency (e.g., Jacobson & Crockett, 2000; Mounts, 2002; Steinberg et al., 1994) were tapping something more than parents' active monitoring. We collectively also suspected that knowledge was

more of a proxy for adolescents' information management than for monitoring. Given that research was now suggesting that parental monitoring could also backfire, researchers moved on to examining the limits of parental monitoring and the nexus of parents' goals (e.g., keeping their adolescents safe) and adolescents' perspectives.

Some of the questions that emerged related to whether parents could monitor *too* much. Some theorists, best represented by Barber and colleagues (Barber et al., 1994), suggested that it was the *absence* of behavioral control (for which parental knowledge was an oft-used measure; Barber et al., 1994) that was connected to delinquency. Moreover, they argued that behavioral control, including monitoring, was theoretically distinct from psychological control in its goals and its outcomes.

These ideas came under more scrutiny. Here we review a few examples of research testing the idea that the absence of behavioral control and presence of psychological control created conditions that increased adolescents' maladjustment. Using an experimental design with hypothetical vignettes (inspired by Pomerantz & Eaton, 2000) manipulating moderate and high levels of control across personal and prudential domains, Kakihara and Tilton-Weaver (2009) examined US middle adolescents' interpretations of behavioral and psychological control in terms of what it would mean for adolescents' competence, their connectedness to parents, and parents' intrusiveness. Although not originally conceived this way, it was clear that these interpretations patterned onto Ryan and Deci's (2000) three nutriments of self-determination theory (SDT): competence, relatedness, and psychological autonomy. The results showed that adolescents interpreted high levels of behavioral and psychological control as indicating that they would matter less to their parents and that the depicted parents were intrusive. The most negative interpretations were generated when the depicted parents were highly controlling over personal domain issues, as was suggested by Smetana and Daddis (2002). In other words, at high levels, and particularly over personal issues, behavioral control and psychological control were indistinguishable in terms of adolescents' interpretations. These ideas were then applied to data from a community sample of Swedish early and middle adolescents' reporting on their parents' monitoring, their perceptions of needs satisfaction, and their adjustment (Kakihara et al., 2010). Results showed that rules, while not significantly related to adolescents' perceptions of autonomy (indexed as feeling overcontrolled) and relatedness (assessed as feeling connected to parents), directly predicted declines in norm-breaking but also declines in self-esteem. Restrictive forms of monitoring were related to increases in feeling overcontrolled by parents. We interpreted this as frustration of autonomy needs, which was subsequently related to increases in norm-breaking, increases in depressive symptoms, and drops in self-esteem. The same paths were found for love withdrawal.

Taken together, these studies suggested that parents could use too much behavioral control and when their monitoring became restrictive, behavioral control looked much like what Barber had described as psychological control

(since referred to as *intrusive parenting*, Barber, 2002; and more recently, *disrespect*, Barber et al., 2012). Through research questioning the limits of behavioral control, monitoring and information management became tied to ideas about intrusive parenting (more on this topic can be found in Chapters 2, 7, and 8 by Hawk and Peng, Padilla-Walker et al., and Rote et al., in this volume).

These types of studies, showing the consistency in signs that monitoring could be counterproductive, opened up areas not previously considered in monitoring research. For example, psychological reactance (Brehm, 1966) became a working idea about mechanisms of adolescents' resistance to parental monitoring (e.g., Van Petegem et al., 2015). As elaborated by Gingo (Chapter 13, this volume), other forms of resistance inspired researchers' thinking.

As researchers thought about monitoring being intrusive, the limits of monitoring and behavioral control were further probed. Privacy issues, previously subsumed under the personal domain of social-cognitive domain theory (Smetana, Chapter 3; Turiel et al., 1991), garnered increasing interest. Using ideas from communications research (most notably Petronio, 1994), researchers started to think about some forms and levels of monitoring as invasions of adolescents' privacy. Led by Hawk's work with early adolescents in the Netherlands (e.g., Hawk et al., 2008, 2009), this body of work showed that parents sometimes invade adolescents' privacy, at times intentionally and at other times, unintentionally (see Hawk & Peng, Chapter 2 of this volume, for an in-depth review).

The important picture coming from this body of research was that parents' and adolescents' goals and needs can conflict with each other, such that one party's needs might be met while the other's is not. This was not a new idea; it can be seen in research using social-cognitive domain theory, in research probing differences and similarities between behavioral and psychological control, and in research examining discrepancies between parent and adolescent reports (e.g., De Los Reyes et al., 2010). Generally speaking, societies expect parents to keep their children safe from harm; to do otherwise would be neglectful or abusive. Societies also expect parents to limit the harm their children can inflict on others. When children and adolescents inflict harm on others or their property, many people ask about what parents are doing to limit such behaviors. Thus, there are expectations that parents *will* regulate behavior. Juxtaposed with these safety and security needs are adolescents' needs for autonomy and self-direction. Researchers generally recognize that the desire for independent and self-directed behavior increases across adolescence (Zimmer-Gembeck & Collins, 2008). At the heart of privacy invasions are these conflicting needs – parents who are worried and concerned about their adolescents can deliberately invade privacy in attempts to gain the very information that adolescents want to keep to themselves (Hawk et al., 2016). However, this does not characterize all intentional invasions of privacy. Sometimes parents simply feel they have the right to the information when adolescents disagree (Chan et al., 2015; Rote & Smetana, 2016; Tilton-Weaver & Trost, 2012).

The studies of privacy invasions can be summarized as showing that under some conditions, monitoring can be viewed as "hypo-parenting" (Pedersen, 2013), connecting it to other forms of parenting that may be meant to be protective, such as "helicopter parenting" (Padilla-Walker et al., 2012) and "curling" (Hougaard, 2004). This drove research into even more diverse directions. In particular, researchers began to question what monitoring looked like in the Digital Age (see Beyens et al., Chapter 10 of this volume, for more). Questions about what adolescents are doing online and how parents would know, as well as questions about whether tracking applications are another form of invasive behavior.

With related topics opening venues for exploration, others had already shown the importance of context, especially ethnic and cultural variation. What is clear is that adolescents vary across ethnicities and cultures in how they manage information and what information they provide to their parents (Bakken & Brown, 2010; Nucci et al., 2014; Tasopoulos-Chan et al., 2009). Chapters 2, 15, and 16, in this volume by Hawk and Peng, Dost-Gözkan, and Killoren et al. provide more insight into variations across cultural contexts.

As questions about contexts arose, so did the desire to understand what monitoring and information management looked like when there were special conditions such as monitoring adolescents and young adults with chronic illnesses or disabilities (e.g., Ellis et al., 2008). In such populations, monitoring and information management have been applied to disease management and medical adherence (e.g., Hilliard et al., 2013) to understand how information necessary for health management is shared between parents and adolescents. Today, such research includes LGBTQIA+ (lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, and more) populations (e.g., Montano et al., 2017). Chapters 17, 18, and 19 in this handbook by McCurdy and Russell, Berg and Marion, and Darling cover these topics for readers who are interested in knowing more.

Other avenues for rethinking parental monitoring and information management were introduced by bringing in other theoretical frameworks. Soenens and colleagues (e.g., Soenens & Vansteenkiste, 2010; see also Soenens and Vansteenkiste, Chapter 4, this volume) focused first on achievement, showing that SDT (Ryan & Deci, 2000) provided a way of understanding the importance of supporting psychological autonomy. As psychological control was a focal issue in their framework, this construct garnered more attention than did monitoring. Nonetheless, research on monitoring using SDT has emerged, but with cross-sectional samples (e.g., Rodríguez-Meirinhos et al., 2020 using community samples of early to middle adolescents in Spain).

The shift in focus from delinquent behavior to psychological autonomy added new parenting constructs, notably autonomy supportive parenting. The use of the term autonomy support was a deliberate attempt to address parenting that was not controlling (see Grolnick et al., 2002), and differentiated autonomy support from both behavioral and psychological control. An important advance, in this literature, was to differentiate supporting (psychological) autonomy from supporting independence (Ryan et al., 2015).

At the same time that SDT was being applied to the questions surrounding parental control and adolescent autonomy, we saw that another area that needed attention was defining autonomy. Despite past efforts to delineate emotional, cognitive, and behavioral autonomy from each other, there were problems with the tendency to define behavioral autonomy as independence (e.g., Peterson, 1986; Simmons & Blythe, 1987). First, equating behavioral autonomy with independence meant that delinquent behaviors were viewed as autonomy. This working definition failed to acknowledge the boundaries that societies place around individual actions, as indicated by taboos, mores, laws, and social conventions. A second issue was the lack of attention to the daily transactional processes between parents and children as regulation of actions is gradually transferred from parent to child. We described this as governance transfer (Tilton-Weaver & Marshall, 2017). As readers can see, what started as dissatisfaction with a single construct grew to encompass much more.

Conclusions and Future Directions

Authors of chapters in this handbook and others have made considerable advances in understanding what is encompassed in parental monitoring and adolescents' information management. Having been part of this journey from the beginning, we hope that researchers continue to uncover the nuances we and others have missed. Despite the advances, we have two enduring concerns that we argue need to be addressed. The first has to do with measurement. Although researchers interested in these topics have come a long way in improving conceptualization, operationalization, and measurement, there is still much that can be improved. For example, we speculate that much more needs to be known about solicitation and monitoring rules (control). How and when are rules constructed? Are rules more effective when they are collaboratively constructed, rather than parent directives? We suspect that the answer is yes, given what the research on autonomy support has taught us. We also suspect that when rules are established before adolescence, earlier in childhood, they become part of family routines, and are much more likely to be complied with as a result. Measurement should address these nuances.

Other details also are worth addressing. At least a decade ago, a process model of monitoring was proposed (Hayes et al., 2003), suggesting that monitoring was a series of parent–child interactions, occurring before and after adolescents went about their daily lives. Parents ask about what adolescents are planning to do and then follow up to find out what they actually did. Related to this, we have suspected that rules have a similar process – rules are laid out, but also require parents to follow up, making determinations as to when adolescents have failed to comply and what the consequences should be. To our knowledge, such interactions have never been documented. Because these details are missing from empirical accounts, missing too is how these aspects of monitoring are related to adolescents' information management and adjustment.

The final concern is about testing direction and causality. From the beginning, we were concerned that too much was inferred about directionality from cross-sectional data and too much about causality was inferred from longitudinal data. Indeed, some of the studies we cite here have used cross-sectional and longitudinal data that, while helpful in some ways, cannot answer some of the questions about causality.

In closing, we note that this volume represents, to a large extent, the current state of the field. The collective body of knowledge has broadened, from questioning what was being assessed in a measure of parental knowledge, to considering the role adolescents play in their own parenting, to viewing parental control and adolescent information management as dynamic and nuanced issues, informed by considering other relationships in and outside of the family. The theoretical framing of the area has grown from its origins in behaviorism to acknowledging the foundational roles of parents' and adolescents' cognitions and emotions, motivations and goals. Research has also expanded to include non-Western samples, but more is needed. Recognizing that the field is as dynamic as human development, we believe research can be improved, continuing as it started by attending to the limits of our data. We encourage others to continue the work, as we applaud the efforts made by so many who took this journey with us.

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