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**Disentangling parental monitoring. The role
of family communication in achieving
parental knowledge**

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Disentangling parental monitoring:

The role of family communication in achieving parental knowledge

Abstract

In this study, parental monitoring construct was disentangled through the introduction of the family communication variable. Two mediation models were tested: The model in which parental solicitation was significantly associated to youth disclosure, and in which both solicitation and youth disclosure fostered the development of positive family communication, fitted data better than the model in which family communication fostered parents' and children's monitoring behaviors. In the first model parental knowledge was achieved through two paths: (1) parental control was directly related to parental knowledge, and (2) family communication mediated the relation of parental solicitation and youth disclosure with parental knowledge, thereby highlighting more complex dynamics.

Keywords: Parental monitoring; Parental knowledge; Adolescent disclosure; Family communication; Mediation model

Disentangling parental monitoring:

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Introduction

In the last two decades several studies have found parental knowledge, a construct generally overlapped to parental monitoring construct, to be a protective factor related to adolescents' adjustment (Crouter, Bumpus, Davis, & McHale, 2005; Neumann, Barker, Koot, & Maughan, 2010). Few studies, however, have examined how parents gain knowledge from their children, and the roles that both parents' behaviors, such as control and solicitation, and children's behaviors, such as disclosure, have. Similarly, there is a lack of empirical evidences on how parental knowledge is reached through interpersonal family dynamics, such as the establishment of a good family communication.

In the present paper we intend to address these issues testing two models in which the interaction among parents' behaviors (*control and solicitation*), adolescents' behaviors (*disclosure*), and what parents know about their adolescent children (*parental knowledge*) (Racz & McMahon, 2011), is explored. The role of *family communication*, a central dimension of family functioning (Olson, 2000; 2011) will also be considered.

Parental monitoring definitions

The examination of the literature on parental monitoring clearly shows a progressive transformation of the ways in which parental monitoring was conceptualized. Originally, it was conceived as a unidirectional parent-driven process, in which parents actively search for information about their children's life, tracking their activities, friends and associates, and whereabouts (Dishion & McMahon, 1998; Patterson & Stouthamer-Loeber, 1984). A systematic critique of this definition was provided by the corpus of

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studies carried out by the Stattin and Kerr's group (Kerr, Stattin, & Burk, 2010; Kerr, Stattin, & Özdemir, 2012; Stattin & Kerr, 2000; Stattin, Kerr, & Tilton-Weaver, 2010). These authors claimed a necessary distinction between parental knowledge and parental monitoring behaviors, asserting that parental solicitation and control through rules were more direct measures of parental monitoring than parental knowledge. They also found that parents' primary source of knowledge was adolescent disclosure rather than parental control, thus acknowledging the active role of adolescents in the monitoring process (Stattin & Kerr, 2000).

Recently, building upon Stattin and Kerr's works, Racz and McMahon (2011) highlighted the need to provide more consistent definitions and operationalization of the monitoring construct, considering: parental behaviors (control and solicitation) and adolescent behaviors, i.e. the voluntary disclosure to their parents; the separation between monitoring behaviors and parental knowledge; and the antecedents and the contextual influences with specific attention to the broader family system dimensions. Only few studies, however, have attempted to clarify the monitoring process considering these aspects.

For instance, Keijsers, Branje, Vander Valk, and Meeus (2010) found that adolescent disclosure both predicted parental knowledge and was highly intertwined with parental solicitation. However, they could not provide evidences on the causal relation between solicitation and disclosure. Waizenhofer, Buchanan and Jackson-Newsom (2004) found that parents' active attempts to solicit information from their children were more strongly related to parental knowledge than adolescent disclosure. Moreover, adolescent disclosure was no longer related to knowledge once parents' active attempts were taken into account.

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Taken together, these studies replicate and amplify Stattin and Kerr's findings confirming that parental knowledge can be considered an "end product" (Stattin & Kerr, 2000, p. 1073); however, it is not clear which behaviors (parental control and/or solicitation, and/or adolescent disclosure) predict parental knowledge, and whether and how parental control, parental solicitation, and adolescent disclosure are connected.

Keijsers and Laird (2014) attempted to explain the relation between parental monitoring behaviors and adolescent disclosure introducing a moderation variable, such as legitimacy belief, i.e. adolescents' beliefs regarding the legitimacy of parents' efforts to regulate adolescents' leisure time behaviors. They found that this variable did not moderate the relation between parental control/solicitation and adolescent disclosure; thus demonstrating that the normative context does not moderate this relation. Other authors suggested that a prospective way to illuminate parental monitoring process is the consideration of interpersonal variables pertaining the family system (Padilla-Walker, Harper, & Bean, 2011; Racz & McMahon, 2011). As indicated by Yang and colleagues (Yang et al., 2007) family communication is a significant variable to be associated with parental monitoring during adolescence.

Parental monitoring and family communication

Family communication is a central dimension of family functioning which refers to the positive communication skills utilized in the family system, such as the family members' capacity of being good listeners, of confronting and discussing problems quietly, of sharing negative feelings and of being supportive one for the other (Olson, 2000; 2011). Its centrality derives from its systemic and interpersonal nature which makes family members able to get positively attuned, and thus facilitated in changing and adapting according to different family developmental phases (Olson, 2000). Adolescence is a period of great changes of family communication quality together with broader

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relational reorganizations (Everri, Fruggeri, & Molinari, 2014; Kreppner, 2002). Families able to keep a good quality of family communication during adolescence transition show a better adjustment in terms of adaptability to changes and emotional connectedness (Barnes & Olson, 1985; Laursen & Collins, 2004). Recently, several studies have confirmed the protective role of a good family communication with respect to adolescents' developmental outcomes (Apell, Stiglbauer, Batinic, & Holtz, 2014; Özdemir, 2014).

Given the positive role of family communication for healthy family functioning and adolescents' development, it is arguable that it is also related to the ways in which the monitoring process takes place. Cottrell and colleagues (Cottrell et al., 2007) found that especially parental knowledge was significantly associated with a positive communicative climate, according to the perceptions of both mothers and early adolescents. Kopko and Dunifon (2010) observed that adolescents were more comfortable sharing information about their activities with their parents (youth disclosure) when a healthy communicative environment was present in their family. Low, Snyder, and Shortt (2012) specified that parental monitoring operate in the broader context of parent-adolescent relational processes. In their longitudinal study, they highlighted that youth disclosure was associated with active maternal solicitation of information when such solicitation occurred in the context of maternal warmth and support.

In sum, having positive family relations and living in a positive communicative climate are aspects related to the development of good parental monitoring. The studies presented above posit that adaptive family dynamics, especially positive family communication, favor positive parental practices, letting emerge the idea that family communication is a contextual variable, i.e. an antecedent of both parents' and children's behaviors and parental knowledge.

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Nevertheless, we want to point out that a positive communicative climate cannot be taken for granted in a family: it needs to be continuously fostered by positive parents' and children's behaviors, such as for instance parental solicitation and adolescent disclosure. Consistently, different studies (Wang, Stanton, Cottrell, Deveaux, & Kaljee, 2013, Yang et al., 2007; Yu et al., 2006) have shown that family communication in adolescence can be conceptualized as a dynamic dimension which derives from monitoring behaviors, thereby suggesting that parents' and adolescents' practices can be considered as antecedents of family communication.

The present study and hypotheses

Taking into account the considerations presented above, in the present paper we wanted to improve the terms of the discussion about the processes that link the input (parents' and adolescents' behaviors) and the outcome (parental knowledge), according to adolescents' perceptions, and taking into account the role of family communication, a central dimension of family functioning (Olson, 2000; 2011).

In order to overcome both the lack of studies on how parental knowledge is achieved and the contrasting evidences on the relation family communication-parental monitoring, we developed and tested mediation models that would better fit our data. In one model (model 1; figure 1), parental control, parental solicitation and youth disclosure are the antecedents of parental knowledge, and family communication is the mediator. In the the other model (model 2; figure 2), family communication is the antecedent of parental knowledge, and parents and children's behaviors are the mediators.

Insert Figure 1 and 2 about here

The following hypotheses were advanced:

1. In line with the literature (Kejiers, Branje, Vander Valk, & Meeus, 2010; Stattin & Kerr, 2000; Waizenhofer, Buchanan, & Jackson-Newsom, 2004) we hypothesized that parental control, parental solicitation, and youth disclosure would be positively associated with parental knowledge (H1.1, H1.2, H1.3). Nevertheless, in line with the studies that found a strong association between parental solicitation and youth disclosure and that suggested to consider them separately from parental control (e.g. Kejiers, Branje, Vander Valk, & Meeus, 2010), we hypothesized that parental solicitation would be positively associated with youth disclosure (H1.4). Finally, we hypothesized that the relation between parental solicitation and parental knowledge would be partially mediated by youth disclosure (H1.5).
2. Taking into account the works on the association between parental monitoring and family communication (Cottrell et al., 2007; Kopko & Dunifon, 2010; Yang et al., 2007) we hypothesized that parental solicitation and youth disclosure would be positively associated and parental control would be negatively associated with the quality of family communication (H2.1 and H2.2 and H2.3). We also posited that a good family communication would be positively associated with parental knowledge (H2.4).

In order to understand how parental knowledge is achieved, we tested two models:

Hypothesis 1 and 2 were tested in both models, while two specific hypotheses

(Hypotheses 3 and 4) have been formulated for model 1 and model 2.

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3. As for the first model (model 1, figure 1), we postulated that a good family communication partially mediates the relation parental solicitation-parental knowledge (H3.1), the relation youth disclosure-parental knowledge (H3.2), and the relation parental control-parental knowledge (H3.3). We also hypothesized that parental solicitation would be positively associated with parental knowledge through the mediation of youth disclosure and family communication respectively. Specifically, we hypothesized a mediation model in which: parental solicitation drives to youth disclosure; this would strengthen family communication, which in turn would be positively associated with parental knowledge (H3.4).
4. As for the second model (model 2, figure 2) we postulated that parental control, youth disclosure and parental solicitation partially mediate the relation between family communication and parental knowledge (H4.1, H4.2, H4.3). Lastly, we hypothesized that family communication would be positively associated with parental knowledge through the mediation of parental solicitation and youth disclosure (H4.4).

Method

Participants and procedure

The study population consisted of 322 adolescents (145 boys and 176 girls, plus one case in which sex was not reported) aged between 13 and 21 years ($M = 15.84$, $SD = 2.03$). The adolescents' families belonged to the upper-middle class, their parents had a junior high school diploma (mother: 13.1%, father: 19.2%), a diploma (mother: 50.3%, 6 missing; father: 44.6%, 13 missing), a master or post graduate degree (mother: 36.7%; father 36.2%). They worked as factory workers (mothers: 7.4%, fathers: 13.7%), employees (mother: 47.9%, 7 missing; father: 33.3%, 14 missing), managers or independent professionals (mother: 19.2%; father: 45.5%); 20.4% of mothers were

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housewives, and others were 5.1% for mothers, and 7.5% for fathers. Most participants were born in Italy (92.4%), lived in two-married parent households (79.0%, 1 missing) and had siblings (one sibling: 54.0%; two siblings: 16.2%; three or more siblings: 5.1%).

Participants were recruited from three secondary schools in a region of Northern Italy. Parents were asked to provide written consent for their children's participation: none of the parents refused consent and all children decided to participate. Data collection was carried out in the classrooms over one hour, in the presence of the teacher and the researcher who administered the questionnaire. Participation in the study was voluntary and anonymous, and participants were encouraged to answer individually and as truthfully as possible.

Measures

Four five-point Likert scales, where 1 indicates 'not at all', and 5 'always' (Stattin & Kerr, 2000), validated in Italy by Miranda, Bacchini and Affuso (2012), were used to assess parental monitoring behaviors and parental knowledge:

Parental knowledge. It assesses the perceptions of parents' knowledge about one's whereabouts, activities and peers (nine-item scale). Sample items of this scale are: "Do your parents know what you do during your free time?", "Do your parents usually know what type of homework you have?";

Youth disclosure. It captures adolescents' tendency to provide unsolicited information, using items such as: "Do you spontaneously tell your parents about your friends (which friends you hang out with and how they think and feel about various things)?", "Do you hide a lot from your parents about what you do during nights and weekends?" (five-item scale).

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Parental control. It contains six items asking whether the adolescent is required to inform parents about where he or she will be and with whom, such as: “If you go out on a Saturday evening, must you inform your parents beforehand about who will be along as well as where you will be going?”, “Must you have your parents’ permission before you go out during the weeknights?”.

Parental solicitation. It relates to the parental tendency to actively seek information about the adolescent and assessed with five items, such as: “How often do your parents talk with your friends when they come over to your house?”, “How often do your parents ask you about what happened during your free time?”.

Internal consistency for each of the four variables calculated in this study were acceptable (Table 1).

Family communication. To assess the quality of communication between parents and adolescents, we used the Family Communication Scale (FCS) that is based on the Parent-Adolescent Communication Scale (PAC; Barnes & Olson, 1985). FCS is a shorter version of PAC and consists of 10 items measured on a five-point Likert scale where 1 indicates ‘totally disagree’ and 5 ‘totally agree’ (Olson & Gorall, 2006). We used the Italian version adapted by Baiocco and colleagues (Baiocco, Cacioppo, Laghi, & Tafà, 2013). Adolescents were asked to reply to items such as: “Family members try to understand each other’s feelings” or “Family members are very good listeners”. Internal consistency is reported in Table 1.

Data analyses

Descriptive statistics and correlations were computed using IBM SPSS Statistics version 22.0 software package (IBM Corp. 2010). Seven cases were excluded from the analyses: 2 because they completed less than 30% of the items and 5 because the

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responses were far from the sample mean in the set of items considered for the analyses, Mahalanobis > 20.51 , $DF = 5$, $p = .001$ (Tabachnick & Fidell, 2001). The final sample consisted of 315 adolescents.

In order to test whether parental control, parental solicitation and youth disclosure effects on parental knowledge would be mediated by family communication (Figure 1) or, instead, they would mediate the effect of family communication on parental knowledge (Figure 2), a structural equation modelling (SEM) approach was used. Two alternative models were tested and then compared using IBM SPSS AMOS 22 statistical package (Byrne, 2001).

All variables of both the models were observed variables. The first model path was constructed considering parental solicitation and parental control as exogenous variables, and youth disclosure, family communication, and parental knowledge as endogenous; the exogenous variables were allowed to co-vary. The second model path was constructed considering family communication as exogenous variable, and parental solicitation, parental control, youth disclosure, and parental knowledge as endogenous.

Because of the departure from normality in the sample is statistically significant (Multivariate c.r. = 3.39), parameters were estimated by Asymptotically Distribution Free method (Byrne, 2001). Standardized and not standardized coefficients for all paths were calculated. In order to assess the model's fit, we used multiple goodness-of-fit indexes. According to Kline (2005), a model fit can be satisfactory when the ratio between the χ^2 and the degree of freedom is less than 3, the comparative fit index (CFI) and the Tucker Lewis index (TLI) are greater than .90, and the standardized root mean square residual (RMSR) is lower than .10. Moreover, if the root mean square error of approximation (RMSEA) is lower than .05, this indicates a close fit, and values between .05 and .08 indicate a reasonable fit (Browne & Cudeck, 1992). Given that the two models are non-

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nested, comparison through chi-square is not possible. For this reason, we used AIC and BIC indexes in order to compare the two models.

Indirect (mediation) analyses were performed through PROCESS, the SPSS macro provided by Hayes (2013), running models 4 (H1.5, H3.1, H3.2, and H4.1, H4.2, H4.3) and 6 (H3.4 and H4.4) with 5000 bootstrap resamples.

Results

Means, standard deviations and correlations between the study variables are reported in Table 1 below.

Insert Table 1 about here

Means showed that adolescent disclosure was significantly lower than parental solicitation ($p < .05$) and both were significantly lower than parental knowledge, parental control and family communication ($p < .001$).

The correlations showed that most study variables were significantly and positively correlated ($p < .001$). With the exception of the correlation between parental control and youth disclosure that was weak, the components of parental monitoring were all highly positively related. The strongest correlation was observed between parental solicitation and parental knowledge ($r = .54, p < .001$), but parental knowledge was also highly related to youth disclosure ($r = .57, p < .001$). Family communication was highly correlated with parental solicitation, parental knowledge and youth disclosure, while no correlation was found with parental control ($r = .10 ns$).

Table 2 reports fit indexes of the two models. Model 1 yielded better fit than model 2. Model 1 reported excellent fit indexes, showing that the data do not significantly differ

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from the proposed (*target*) model and significantly differ from the *null* model; AIC and BIC indexes were lower than those reported in model 2. Model 1 accounted for a substantial portion of variance in parental knowledge (50%), which was higher than in model 2 (47%). With the exception of the RMR index, model 2 did not report satisfactory or reasonable fit indexes.

Insert Table 2 about here

In order to test the hypotheses, beta coefficient estimated by SEM for model 1 and model 2 were considered. Regarding the relations among the behavioral components of monitoring (parental control, parental solicitation and youth disclosure) and parental knowledge, all expected direct effects were significant at $p < .001$. In line with the Hypotheses 1.1, 1.2 and 1.3, parental control ($b_{Model1} = .18, z = 6.23, p < .001$; $b_{Model2} = .18, z = 6.42, p < .001$), parental solicitation ($b_{Model1} = .15, z = 3.92, p < .001$; $b_{Model2} = .15, z = 3.72, p < .001$) and youth disclosure ($b_{Model1} = .23, z = 6.19, p < .001$; $b_{Model2} = .25, z = 6.42, p < .001$) were associated with parental knowledge. Moreover, as we expected from the hypothesis 1.4, parental solicitation was strongly associated with youth disclosure ($b_{Model1} = .50, z = 9.65, p < .001$; $b_{Model2} = .34, z = 5.52, p < .001$), and accounted for 24% of the variance of youth disclosure in model 1 and 33% in model 2.

The mediation analysis through PROCESS (Hayes, 2013) confirmed that the relation between parental solicitation and parental knowledge ($b = .38, t = 11.28, p < .001$) was partially mediated by youth disclosure (indirect effect = .14, $z = 6.18, p < .001$), in line with the Hypothesis 1.5. Bootstrap analysis confirmed the results of the Sobel test, 95% CI [.10, .19].

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The SEM statistical model partially supported the role of family communication in the relation among parental solicitation, youth disclosure, parental control and parental knowledge. As we expected from the Hypotheses 2.1 and 2.2, both parental solicitation ($b_{Model1} = .28, z = 5.56, p < .001$) and youth disclosure ($b_{Model1} = .30, z = 5.24, p < .001$) were associated with family communication, and accounted for 29% of their variance in model 1. Also the reverse (model 2) was found ($b_{Model2} = .50, z = 9.40, p < .001$ and $b_{Model2} = .36, z = 5.29, p < .001$ respectively). As we expected from the Hypothesis 2.4, family communication was associated with parental knowledge in both models ($b_{Model1} = .13, z = 3.15, p < .01$; $b_{Model2} = .11, z = 2.85, p < .01$). However, contrary to the Hypothesis 2.3 in both models parental control was not significantly associated with family communication.

The mediation analysis through PROCESS supported Hypotheses 3.1 and 3.2 of the model 1: the relation between parental solicitation and parental knowledge ($b = .38, t = 11.28, p < .001$), and between youth disclosure and parental knowledge ($b = .39, t = 12.10, p < .001$) was partially mediated by family communication indirect effects, respectively of $.08, z = 4.38, p < .001, 95\% CI [.05, .13]$, and $.08, z = 4.11, p < .001, 95\% CI [.04, .12]$. The mediation analysis did not support the Hypothesis 3.3: The relation between parental control and parental knowledge ($b = .23, t = 8.39, p < .001$) was not mediated by family communication, $.03, z = 1.76, p = .078, 95\% CI [-.01, .06]$. Running model 6 of PROCESS macro, data supported Hypothesis 3.4 showing that the relation between parental solicitation and parental knowledge, $.17, 95\% CI [.12, .23]$, was partially due to the following path: parental solicitation drives to youth disclosure, thus improving family communication, which is associated with high parental knowledge, $.02, 95\% CI [.01, .04]$. Nevertheless, the highest indirect effect was found in the path in which parental solicitation drives to youth disclosure, which in turn was associated with high parental knowledge, $.12, 95\% CI [.08, .17]$. Specific indirect effect contrasts showed that this last

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indirect effect was significantly higher than both the path of parental solicitation → youth disclosure → family communication → parental knowledge and the path of parental solicitation → family communication → parental knowledge.

The mediation analysis supported Hypotheses 4.2 and 4.3 of the model 2: the relations between family communication and parental knowledge ($b = .18, t = 4.58, p < .001$ and $b = .20, t = 5.04, p < .001$) were partially mediated by youth disclosure and parental solicitation indirect effects, respectively of $.17, z = 6.46, p < .001, 95\% \text{ CI } [.12, .22]$, and $.15, z = 6.03, p < .001, 95\% \text{ CI } [.10, .20]$. The mediation analysis did not support the Hypothesis 4.1: the relation between family communication and parental knowledge ($b = .32, t = 8.96, p < .001$) was not mediated by parental control, $.03, z = 1.76, p = .079, 95\% \text{ CI } [-.01, .07]$. Running model 6 of PROCESS macro, data supported Hypothesis 4.4 showing that the relation between family communication and parental knowledge, $.23, 95\% \text{ CI } [.18, .30]$, was partially due to the path: family communication → parental solicitation → youth disclosure → parental knowledge.

Discussion

The intent of the current study was to disentangle parental monitoring testing mediation models that could both shed light on the process that drives to parental knowledge, and provide a more complex explanation of the interaction among parents' and adolescents' behaviors, through the intervention of a family interpersonal variable.

Two models, in particular, served the function. In the first model, family communication mediated the relation between parents' and adolescents' behaviors, i.e. solicitation and disclosure, and parental knowledge; in the second model, instead, parents' and adolescents' behaviors mediated the relation between family communication and parental knowledge.

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The literature supported both models showing that family communication can be considered both as a dynamic dimension, as theorized by Olson (Olson 2000; 2011) and as demonstrated by empirical works (Wang, Stanton, Cottrell, Deveaux, & Kaljee, 2013; Yang et al., 2007; Yu et al., 2006), and as a contextual dimension (Cottrell et al., 2007; Kopko & Dunifon, 2010; Low, Snyder, & Shortt, 2012). Our data substantially confirmed that these perspectives are not totally contrasting; however, the first perspective, which was supported by the first model, fitted data better than the second perspective.

More specifically, our results showed that parental knowledge, a dimension considered a protective factor for adolescents' positive adjustment (Crouter et al., 2005; Neumann et al., 2010), was strictly associated with both parental (control and solicitation) and adolescent (disclosure) behaviors. As also outlined by Kijers Branje, Vander Valk, and Meeus (2010), we found that adolescents disclosed to their parents when their parents solicited them, but more interestingly we noted that youth disclosure partially mediated the relation between parental solicitation and parental knowledge. In other words, according to adolescents' perceptions, the amount of information that parents gain (parental knowledge) is linked to their willingness to provide information to their parents (youth disclosure), which seems to be the response to their parents' active solicitation (parental solicitation). A similar result was not found by previous studies (e.g., Waizenhofer, Buchanan, & Jackson-Newsom, 2004), thus, in order to better understand the relation among parental solicitation, youth disclosure, and parental knowledge, we introduced the variable pertaining family communication (Olson, 2000; 2011).

The centrality of family communication for family and adolescent adjustment is well established: A positive association of this variable with parental knowledge (Cottrell et al., 2007) and other monitoring behaviors (Low, Snyder, & Shortt, 2012; Kopko & Dunifon, 2010) was found. In line with Cottrell and colleagues (Cottrell et al., 2007), we

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showed that family communication was significantly associated with parental knowledge. In other words, when families have established a good communication, in terms of reciprocal support, ability to discuss problems quietly, and share negative feelings, parents are facilitated in knowing their children's private issues. In this sense, family communication function as a contextual dimension which favors the achievement of parental knowledge. Family communication-parental knowledge relation was also mediated by specific parents' and adolescents' behaviors, i.e. parental solicitation and youth disclosure, but not parental control.

The quality of family communication, however, cannot be taken for granted. In fact, we also found more complex dynamics: family communication partially mediated the relation of parental solicitation and youth disclosure with parental knowledge, but it did not mediate the relation of parental control with parental knowledge. In other words, the mediation effect of family communication strengthened the relation of parents' and adolescents' behaviors with parental knowledge, confirming the positive effect of family relational dynamics on parental monitoring process (Everri, Mancini, & Fruggeri, 2015). This result is consistent with a perspective that considers family communication as a dynamic construct fostered by specific parents' and children's behaviors (e.g., Wang, Stanton, Cottrell, Deveaux, & Kaljee, 2013; Yang et al., 2007; Yu et al., 2006).

Conclusion

Taken together, our findings provide support to a dynamic and multifaceted conceptualization of parental monitoring construct (Racz & McMahon, 2011). In particular, we showed that parental knowledge is an "end product" (Stattin & Kerr, 2000, p. 1073) that can be achieved through two paths, which account for different relational processes.

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In the first path, parents gain information about what their adolescent children do (i.e. activities, friends and associates, and whereabouts) through control, which means that they impose rules and set limits (Stattin & Kerr, 2000). This can be considered a ‘coercive way’ to obtain knowledge since no other processes are involved or activated; in fact, neither other monitoring behaviors nor family communication intervene in this relation. This path seems to be characteristic of adolescence developmental tasks, in that parents’ practices are guided by the control of adolescents’ activities and whereabouts through norms (Smetana & Daddis, 2002). However, this way of interacting does not allow adolescents to spontaneously communicate with their parents and disclose to them about their private issues; in fact, in this path adolescents seem to be ‘passive recipients’ of parents’ directives. Thus, parents gain knowledge but without either building or starting with a positive communicative climate that could accompany them in the future tasks beyond those of adolescence (Grotevant & Cooper, 1985).

In the second observed path, instead, family communication is central, and parental knowledge is achieved through a more complex relation between parents and adolescents’ behaviors. This path shows a relational process in which both parents and adolescents have an active role: The achievement of parental knowledge is possible through parents’ and adolescents’ behaviors, and it occurs when family communication is good.

It still remains an unsolved issue whether family communication should be considered either as a dynamic process that parents’ and adolescents’ behaviors contribute to construct, or as a contextual dimension which fosters the development of positive parent-adolescent practices. The fit of the first model that we tested in this study seems to corroborate the hypotheses that parent-adolescent behaviors contribute to construct a protective context in which the possibility of talking and exchanging ideas is promoted and facilitated (Barnes & Olson, 1985). In this line, parental monitoring emerges as a co-

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constructed process, which occurs in families' everyday life interactions (Everri, Molinari, & Fruggeri, 2014) and which contributes to the generation and maintenance of a context of positive communication. Thus, both parents and children can rely on a communicative connectedness that it is likely to be maintained regardless the developmental phase of the children. In other words, adolescents living in families that follow this path could benefit of having built a context of communicative comfort with their parents.

Some limitations can be found to this study. First, nevertheless the model in which family communication was considered as a dynamic construct fitted the data better than the model in which family communication was considered as a contextual dimension, longitudinal studies are need. These studies should take into consideration the different components of family communication: structural, emotional, and relational (Olson, 2000; 2011). Second, the relations here observed were based only on adolescent perceptions of the variables involved. The possibility to collect also parents' perceptions would provide a better understanding of the parental monitoring process (Cottrell et al., 2003). Third, our study is cross-sectional, thus it takes only a snapshot of the parental monitoring process in adolescence. It would be interesting to control for gender and age of the adolescent considered, but first of all to follow longitudinally adolescents, especially in the transition toward adulthood in order to investigate whether the two identified paths are stable across adolescence transition or instead change (Aquilino, 1997), in particular the path based on control, which could be linked to adolescence developmental phase. Lastly, we considered only family communication as interpersonal variable, but other dimensions concerning family functioning could be taken into considerations, such as cohesion and flexibility (Olson, 2011).

Future line of research should take into consideration more complex models in which parental monitoring is studied in relation to different variables, including those

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concerning adolescents' adjustment. In this line, it would be possible to identify the processes that either facilitate or limit adolescents' adaptive development.

Implications for practice

Our findings can improve the effectiveness of psychosocial and clinical interventions with parents and their adolescent children. In line with the considerations presented above, the capacity of parents to solicit their children's disclosure becomes an opportunity to construct a context of positive exchanges, which can be protective of family relations in coping with future developmental tasks. In contrast, parents that rely more on control than on solicitation cannot benefit of the effects of the adolescent disclosure and positive family communication.

Practitioners could develop intervention programs in which parents are trained to develop strategies that allow them to become interested in their adolescent children life outside home, and in which adolescents are sustained trusting their parents' interest in their life, so that they can progressively become able to disclose to them. This initial intervention could trigger a virtuous cycle in which both parents and adolescents learn to develop and foster a positive way of communicating in the family. Parents therefore achieve knowledge but through a more supportive and enduring relational process.

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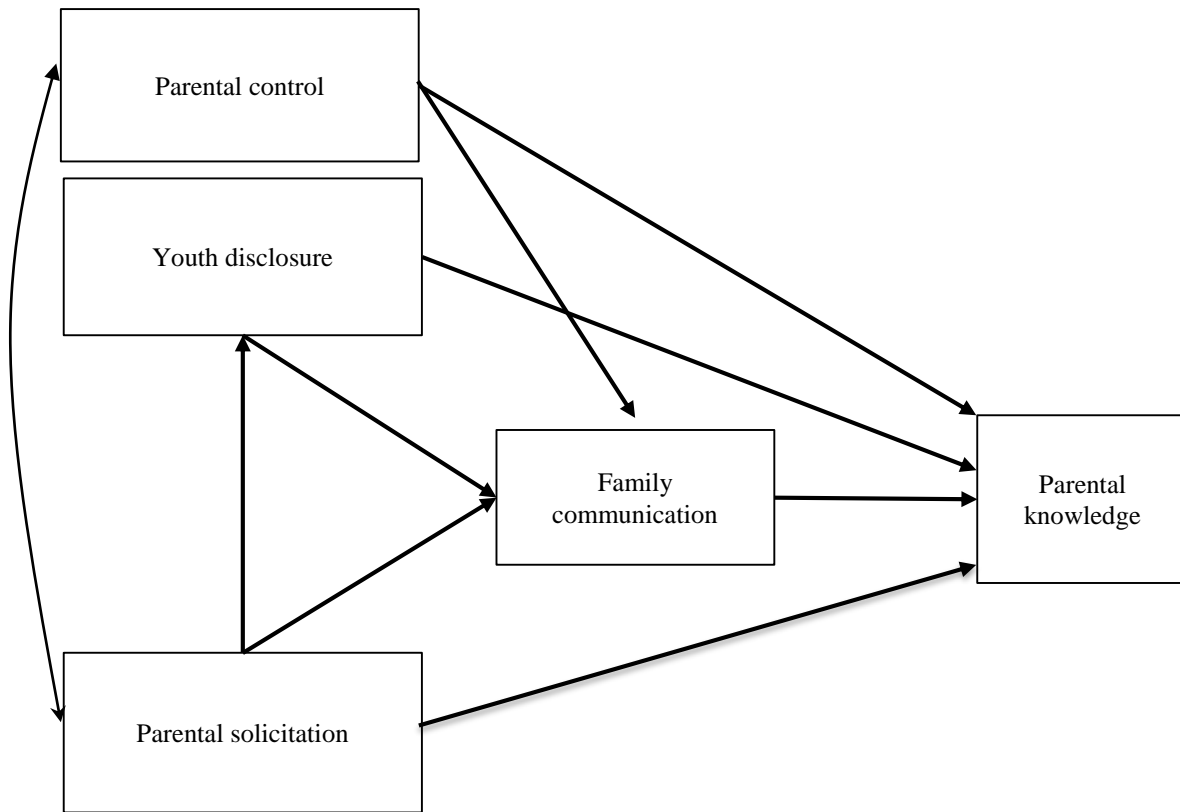


Figure 1. Proposed model of predictors of parental knowledge. Family communication as mediator.

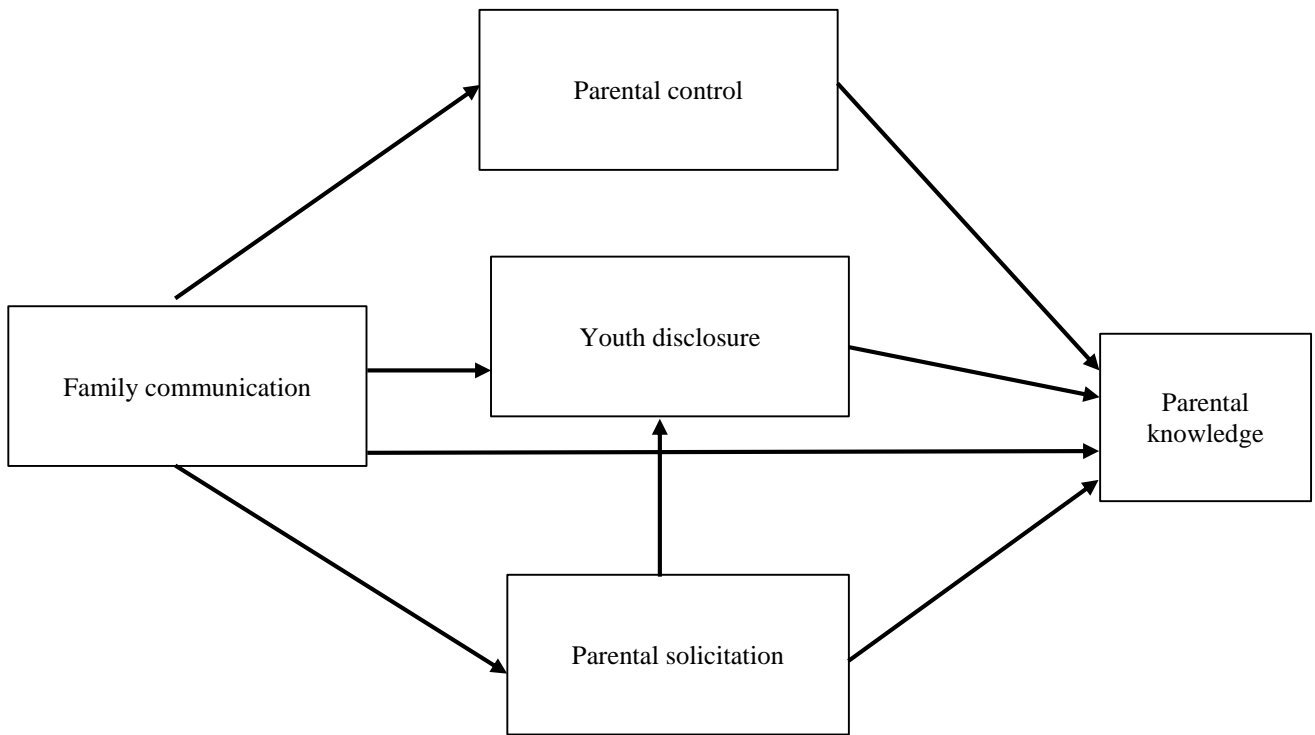


Figure 2. Proposed model of predictors of parental knowledge. Family communication as predictor.

TABLE

Table 1.

Descriptive statistics: Means, Standard deviations and Pearson's correlations (N=315)

	<i>M</i>	<i>SD</i>	Alpha	1	2	3	4	5
1. Parental control	3.59	.91	.79	1.00				
2. Parental solicitation	3.23	.78	.72	.31***	1.00			
3. Youth disclosure	3.34	.81	.77	.17*	.49***	1.00		
4. Parental knowledge	3.64	.55	.70	.43***	.54***	.57***	1.00	
5. Family communication	3.59	.71	.85	.10	.46**	.48***	.45***	1.00

*** $p < .001$; ** $p < .01$

Table 2.

Fit indexes of tested models

	$\chi^2 (df)$	CFI	TLI	RMR	RMSEA [90% CI]	AIC	BIC	R^2
Model 1: Family communication as mediator	0.17(1)	1.00	1.05	.01	.00 [.00 - .11]	28.17	80.71	.50
Model 2: Family communication as predictor	27.88(2)	.84	.21	.07	.20 [.14 - .27]	53.88	102.66	.47