EFFECTS OF AN ONLINE INTERVENTION ON MOTHERS' PARENTING BEHAVIORS AND THEIR CHILD'S MOTIVATIONAL RESOURCES

Stéphane Duchesne, Catherine F. Ratelle, Simon Larose, and Geneviève Boisclair-Châteauvert
Université Laval, Québec, Canada

PERSPECTIVES

•The basic psychological needs of autonomy, competence, and relatedness are essential nutrients for the development of individuals' full potential, adaptation, and health.

Autonomy = experiencing volition and feeling that thoughts and actions are self-endorsed.

Competence = experiencing mastery and feeling efficacious in activities.

Relatedness = experiencing connection, nurturing, and reciprocity with significant others.

•In the school setting, students' psychological needs satisfaction (PNS) promotes optimal functioning, including high-quality motivation (Ryan & Deci, 2020).

•When students transition to secondary school, they are often faced with significant contextual changes, such as having less autonomy-supportive teachers, which can hinder their needs and motivation (e.g., Symonds & Galton, 2014).

•Guiding parents on creating an autonomy-supportive environment during this transitional period could be potentially beneficial for students' motivational resources. However, to our knowledge, there is no program that has been both specifically designed and empirically tested for this particular purpose.

•To address this gap, we have developed an online education program for parents called MAXIME (MAXimize the Impact of My Environment).

MAXIME PROGRAM

•Based on SDT framework, the program covers 9 modules (20 minutes each) presenting video capsules and interactive activities (e.g., self-assessment questionnaire, case study).

•Modules 1 to 6 were offered during Grade 6 (September to June) and covered PNS and parental behaviors.

•Modules 7 to 9 were available at the beginning of secondary school (Grade 7) and covered topics such as homework, performance anxiety, and communication with teachers.

Maxime

GOALS AND HYPOTHESES

•Explore the effects of MAXIME on (1) maternal behaviors and (2) students' motivational resources (PNS and motivation).

•MAXIME will predict positive changes in parenting behaviors, students' PNS and academic motivations.

METHOD

Participants and Procedure

•106 mother-adolescent dyads from the province of Quebec (Canada). At the beginning of the study, the adolescents were in Grade 5 and would be the first in their family to enter secondary.

•Mothers and adolescents were randomly assigned to experimental (33 dyads; 61% boys, Mage = 10.70 years) and control groups (73 dyads; 59% boys, Mage = 10.83 years). All participants filled an online survey each spring (Grade 5 and Secondary 2).

Measures and Analytical Strategies

•*Mothers:* Parents as Social Context Questionnaire (PASCQ; Skinner et al., 2005). *Adolescents:* PASCQ (Skinner et al., 2005); Adolescent Students' Basic Psychological Needs at School Scale (Tian et al., 2014); Academic Motivation Scale (Vallerand et al., 1989).

•Multiple multivariate regressions were performed in Mplus. The MLR estimator was used with type = COMPLEX option. Missingness was statistically handled using the FIML algorithm.

RESULTS

•Results indicated that compared to mothers assigned to the control condition, those in the intervention group scored higher on autonomy support and lower on control behaviors.

Table 1. *Regression Predicting Changes in Parenting Behaviors (N = 106)*

Variables	M-Autonomy Support[a] (T2) β	SE	95% CI	M-Control[b] (T2) β	SE	95% CI	C-Autonomy Support[a] (T2) β	SE	95% CI	C-Control[b] (T2) β	SE	95% CI
Program[b]	.19*	.08	[.04, .34]	-.05	.09	[-.22, .13]	.18	.10	[-.02, .38]	-.24*	.09	[-.41, -.07]
M-AS[a] (T1)	.58*	.12	[.34, .81]	.04	.10	[-.15, .23]	.04	.15	[-.25, .34]	-.04	.15	[-.32, .25]
M-C[a] (T1)	-.01	.09	[-.19, .18]	.56*	.13	[.31, .81]	-.02	.20	[-.41, .38]	.07	.16	[-.25, .39]
C-AS[a] (T1)	-.04	.14	[-.32, .25]	.01	.14	[-.26, .28]	.22	.22	[-.22, .65]	.20	.17	[-.14, .54]
C-C[a] (T1)	-.15	.11	[-.36, .06]	.01	.11	[-.21, .24]	.01	.14	[-.26, .29]	.40*	.12	[.16, .64]
Sex[c]	.11	.09	[-.06, .29]	-.06	.09	[-.24, .11]	.12	.11	[-.09, .34]	-.07	.10	[-.26, .12]
Specialized services[d]	.01	.10	[-.18, .19]	.10	.09	[-.07, .27]	-.04	.12	[-.26, .19]	.23*	.12	[.00, .45]
Variance (R²)	.41			.36			.10			.29		

Note. M= Mother, C = Child. AS = Autonomy Support, C = Control. [a]Variables were z-standardized. [b]Program was dummy-coded 0 = control group and 1 = experimental group. [c]Girls serve as the reference group. [d]Specialized services received by the child since the beginning of primary school (e.g., psychology, remedial education). T1 = (Time 1 / Grade 5); T2 = (Time 2 / Secondary 2). *p < .05 or less.

•Adolescents of mothers in the intervention group scored higher on competence need satisfaction and lower on amotivation than adolescents of mothers in the control group. (Tables 2 et 3).

Table 2. *Regression Predicting Changes in Need Satisfaction (N = 106)*

Variables	Autonomy[a] (T2) β	SE	95% CI	Competence[a] (T2) β	SE	95% CI	Relatedness[a] (T2) β	SE	95% CI
Program	.09	.10	[-.10, .28]	.22*	.10	[.02, .41]	.07	.10	[-.13, .27]
Autonomy[a] (T1)	.40*	.15	[.11, .69]	-.04	.14	[-.33, .24]	-.01	.14	[-.28, .27]
Competence[a] (T1)	.19	.66	[-.12, .49]	.44*	.17	[.11, .76]	.12	.16	[-.20, .43]
Relatedness[a] (T1)	-.18	.14	[-.45, .10]	-.14	.14	[-.41, .13]	.22	.15	[-.07, .51]
Sex	-.02	.10	[-.22, .18]	.04	.11	[-.17, .25]	-.18	.11	[-.40, .04]
Specialized services	-.09	.12	[-.32, .15]	-.07	.14	[-.34, .22]	-.16	.13	[-.40, .09]
Variance (R²)	.22			.17			.15		

Note. M= Mother, C = Child. AS = Autonomy Support, C = Control. [a]Variables were z-standardized.

Table 3. *Regression Predicting Changes in Academic Motivations (N = 106)*

Variables	Intrinsic[a] (T2) β	SE	95% CI	Identified[a] (T2) β	SE	95% CI	Introjected[a] (T2) β	SE	95% CI	External[a] (T2) β	SE	95% CI	Amotivation[a] (T2) β	SE	95% CI
Program[b]	.09	.11	[-.11, .30]	.12	.09	[-.06, .30]	.04	.10	[-.15, .22]	-.15	.11	[-.37, .06]	-.21*	.09	[-.38, -.04]
Intrinsic[a] (T1)	-.02	.12	[-.27, .22]	-.10	.13	[-.35, .15]	-.18	.14	[-.45, .10]	-.04	.10	[-.24, .15]	.31*	.15	[.02, .59]
Identified[a] (T1)	.29*	.11	[.07, .51]	.35*	.11	[.14, .55]	.16	.14	[-.11, .43]	.01	.11	[-.22, .23]	-.24	.18	[-.60, .11]
Introjected[a] (T1)	.10	.10	[-.11, .30]	-.16*	.08	[-.32, .01]	.31*	.11	[.10, .52]	-.03	.08	[-.19, .14]	.13	.10	[-.07, .33]
External[a] (T1)	.06	.14	[-.23, .35]	.10	.14	[-.17, .36]	.17	.11	[-.04, .38]	.19	.13	[-.07, .46]	-.03	.14	[-.30, .25]
Amotivation[a] (T1)	-.19	.11	[-.44, .06]	-.04	.15	[-.33, .25]	-.02	.08	[-.18, .13]	.23	.14	[-.03, .50]	.28	.18	[-.07, .63]
Sex	.09	.11	[-.12, .30]	.22*	.11	[.01, .42]	-.02	.10	[-.22, .18]	-.01	.11	[-.23, .21]	-.26*	.10	[-.45, -.07]
Specialized services	-.18	.09	[-.36, .01]	-.06	.11	[-.26, .15]	.12	.12	[-.11, .35]	.04	.12	[-.18, .27]	.01	.09	[-.16, .19]
Variance (R²)	.20			.19			.20			.16			.32		

Note. [a]Variables were z-standardized. [b]Program was dummy-coded 0 = control group and 1 = experimental group. *p < .05 or less.

DISCUSSION

•The results of this experimental study partially confirmed the proposed hypotheses, as moderate effects were observed on mothers' autonomy support (increase) and control behaviors (decrease), as well as on adolescents' competence need satisfaction (increase) and academic amotivation (decrease).

•Autonomy support involves communicating in an open and empathetic manner, providing opportunities for decision-making and meaningful choices, giving rational explanations for requests, and offering age-appropriate responsibilities. By contrast, control involves using pressure and dominance to force an adolescent to think or behave in a particular way. The findings of this study indicate that MAXIME has the potential to help mothers prioritize autonomy support over control and facilitate a smoother transition to secondary school for their adolescent.

Implications
•A cost-effective and readily accessible measure for mothers at all times.
•A complementary program to preventive measures aimed at facilitating the transition to secondary school.

Limitations
•Small sample size consisting mostly of dyads from intact, middle-class families.
•Mothers had a varying degree of exposure to different modules

Future Directions
•Examining other parenting behaviors (involvement, structure).
•Investigating the effects of the program on fathers.
•Exploring individual and school factors as potential moderators.