

FAMILY FACTORS, ACHIEVEMENT GOALS AND ACADEMIC MOTIVATION IN LATIN AMERICAN STUDENTS

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Abstract:

Lack of student motivation is a problem for teachers, who often attribute it to the family. Although we know the effect of parental socialization style and motivational orientation of parents on achievement goals and academic motivation of students, the effect of family climate have been less explored. Also, studies on the relationship between these variables in Latin-American students have not been found. We assessed family climate, style of socialization and goal orientations in the family, and achievement goals and academic motivation in 331 secondary students. We analyzed the effect of the former on the latter by ANOVA. The results show that all three family factors have significant effects on achievement goals and academic motivation of students, and that the goals of these students influence their motivation. The exception was the failure avoidance goals, which are not influenced nor influences other variables. These results and some of the limitations of the research are discussed.

Key Words: Family factors, achievement goals, academic motivation, secondary students, Latin America

Introduction:

Among the complaints from teachers of all levels of education that have been explicitly identified by decades (Alonso-Tapia, 1997), found that many of the students have no interest in school contents, or not guide the effort to acquire the knowledge and capabilities that are the subject of teaching, and that family and social context is not conducive to student motivation, because parents do not value the effort and the acquisition of skills and / or competencies. Certainly, the modes of action and messages from parents create environments that stimulate the interest and efforts of students to learn, or discourage it. In this sense, research has emphasized the role of parental socialization or upbringing. Parental socialization styles or parenting styles, are sets of behaviors that are communicated to the child and cause an emotional climate in which parental behavior is expressed. Include both behaviors in which parents explicitly represent their parenting practice as nonverbal behaviors and spontaneous emotional expressions (Steinberg, 2001). It has been consistently identified four patterns of parental socialization or parenting styles (Baumrind, 1971; Dornbusch, Ritter, Leidferman, Robert & Fraleigh, 1987; Maccoby & Martin, 1983): authoritarian, authoritative, permissive and indulgent or negligent, which results from the combination of two dimensions (acceptance- involvement and coercion- imposition). Authoritarian parents (low acceptance / involvement and high coercion / imposition) are highly demanding and very little attentive and sensitive to the needs and wishes of the child. Parental verbal messages are unilateral and become emotionally disapproving. They are generally indifference to the demands of support and care of children, less likely using positive reinforcement, showing indifferent to the appropriate behavior of their children. Authoritative parents (high acceptance / involvement and high coercion / imposition) are good communicators, have a willingness to accept the arguments of the child and to remove an order or demand, using most frequently the reason over coercion to get complacency, and encourage dialogue over imposition in order to achieve agreements with the children. They balance the high affection with high control, and high demands with clear communication about all that is required of

the child, characterizing by affection, control and maturity demands. Indulgent or permissive parents (high acceptance / involvement and low coercion / imposition) try to behave affective by accepting the impulses, desires and actions of the child. Consults with them about internal household decisions and provides them explanations for family rules. Allow their children to regulate their own activities as much as possible, providing help with explanations and reasoning and avoiding exercise of coercive control and imposition, and do not force them to obey guidelines imposed by authority figures, unless they are discussed. Neglectful parents (low acceptance / involvement and low coercion / imposition) are parents who have serious difficulty relating and interacting with their children, as well as defining boundaries in their relationships with them, permitting defenseless that be the children who define it; accept with difficulties the evolutionary changes of their children and have few expressions of affection; are not involved in interactions with them and do not constantly supervise the activities of the children (Musitu & Garcia, 2004).

It has been shown that these styles have a significant influence on how students engage in school and performance. For example, adolescents with authoritative parents show greater interest in school, higher self-efficacy expectations and better academic performance (Boon, 2007; Glasgow, Dornbusch, Troyer, Steinberg & Ritter, 1997; Lamborn, Mounts, Steinberg & Dornbusch, 1991; Pelegrina, Garcia & Casanova, 2002), and adolescents with neglectful parents show poorer performance (Boon, 2007). In undergraduate, Turner, Chandler and Heffer (2009) found that authoritative parenting style positively influences academic achievement, but the authoritarian and permissive styles are not related to it.

It also has been linked parental socialization style with the kind of goal that students take in achievement situations (just as an example, Chen, 2010). Goals are the purpose for which someone is involved in a task (Nelson & DeBacker, 2008). Specifically, are concrete cognitive representations that play a directional role guiding the person toward specific outcomes (Elliot & Thrash, 2001), representations of desired states that serve as criteria for comparing the current states (Austin & Vancouver, 1996). Achievement goals are a specific type of goals in which the final result is competence: are cognitive representations of a competency-based possibility that a person seeks to achieve (Elliot, 1999). A first distinction in achievement goals was in order to differentiate the task orientation itself of the orientation of the social, interpersonal or intrapersonal task. For example, Nicholls, Cobb, Yackel, Wood & Wheatley (1990) distinguished between self-centered goals (orientated to maximize the evaluation of self-competence and to reduce incompetence assessment from others) and task-centered (oriented to master the task and improve the competence itself). Similarly, Dweck (1999) distinguished between performance goals, in which what is sought is the final result – a score, for example - and domain or learning goals, which is looking for learning or mastering the task alone. The trichotomic model (Elliot & Church, 1997; Elliot & Harackiewicz, 1996) distinguishes domain or learning goals, performance-approximation goals and performance-avoidance goals (or avoidance of failure), a model that has been the one of highest projection in research. Evidence of the effect of goals on motivation and related affective factors is abundant, which has led to Grant and Dweck (2003) to say that goals have a causal effect on motivation, and to Elliot and McGregor (1999) to consider achievement goals as predictors of cognitive, metacognitive and motivational strategies. Hence the importance of parental socialization effect on achievement goals, in terms of their educational implications. In this regard, it has been found that learning goals are favored when parents have an authoritative parenting style, while the authoritarian style is positively associated with performance goals, and permissive style favors performance orientation and is negatively related to goals learning (Boon, 2007).

The characteristics of family environment, although related to modes of socialization, may be influenced by other variables, such as personality characteristics of parents, the type of activities in which they engage, etc. Therefore, family environment does not necessarily correspond to parenting style. However, research about eventual influence of family climate on achievement goals or motivation of students beside this model of socialization styles has not been found.

Moreover, it has been shown that both the goals and the motivation of the students are directly influenced by the goals that the environmental significant others emphasize. This influence of goal orientation prevailing in the immediate environment has been referred to as motivational climate, and was proposed by Ames (1992) to refer to the motivational context in the classroom, which has

been extensively studied (eg, Alonso -Tapia & Fernández, 2008). In the case of parental influence, it has been shown that the perception that students have of achievement goals emphasized by parents predict their own goals in general (Gonida, Kiosseoglou & Voulala, 2007; Gonida, Voulala & Kiosseoglou, 2009) or in specific domains such as science (Kahraman & Sungur-Vural, 2012; Kahraman & Sungur, 2013), mathematics (Friedel, Cortina, Turner & Midgley, 2007) or physical training (Gutiérrez & Escartí, 2006).

Despite this international evidence and the relevance of these relationships to understand the involvement of students in their education, not found any research on the influence of these variables, alone or together, on goals or motivation of students in the Latin American context. In this paper, we present the preliminary analysis of research conducted with the dual aim of exploring the possible influence of family climate on achievement goals and academic motivation of students, and to help determine the relationship between the family climate, parental socialization and family motivational climate with achievement goals and academic motivation of students in a Latin American context.

Participants:

This research involved 370 students from 12-19 years old, grades 6 to 12 of secondary school in a private management but publicly funded located in the city of Iquique, Chile, whose population corresponds to middle socioeconomic level, according local standards. Participation was voluntary and anonymous, and of the total number of volunteers, 331 responded validly the battery of instruments and formed the final sample. Within it, 55.7% were female and 44.3% male, and the mean age was 15 years, 82.2% live with both parents and 17.8% live with one of the two parents.

Instruments:

The family climate was assessed using Moos Family Climate Scale (Moos, 1979), as adapted for local families by Luis Cruz (2011). The scale consists of 41 items, with a dichotomous answer format (true / false). We used the seven variables that were validated in the study of Cruz: cohesion, expressiveness, conflict, orientation to cultural and intellectual activity, recreational orientation, moral aspects and organization, with which the author identified eight types of family climate. The reliability obtained by the author ranged from $\alpha = 0.5$ and $\alpha = 0.87$. For purposes of this study, it was found again, through cluster analysis, eight types of emerging family climate, although slightly different from those identified by Cruz, which were described as: (1) cohesive expressive (2) expressive, conflictive and organized, (3) conflictive sedentary, (4) inexpressive, intellectual and cultural, (5) inexpressive, (6) cultural, intellectual and organized, (7) unattached conflictive and (8) cohesive conflictive. Each family was assigned to the type of climate in which was classified by this analysis. Parental socialization style was measured with the Parental Socialization Scale ESPA29 of Musitu and Garcia (2001). The instrument contains 116 items with a likert response format of 4-score, evaluating 7 variables separately for each parent: affect, indifference, dialogue, detachment, verbal scolding, physical punishment and revoking privileges. These scales are combined to form the dimensions acceptance / involvement and strictness/imposition, whose reliabilities are around $\alpha = 0.9$. From these dimensions, each parent is classified in one of the parental socialization styles: authoritative, indulgent, authoritarian or negligent. In this sample, however, only found parents in the authoritative and authoritarian styles. The motivational family climate was evaluated from an adaptation of the scale of perceived peer motivational climate in sport (Ntoumanis & Vazou, 2005), which assesses motivational climate oriented to task and motivational climate oriented to ego. For this research, an amendment was made in the form of wording of the items, in order to adapt them to the motivational orientation transmitted by parents and emphasized in the family, whose reliability was $\alpha = .90$ for task orientation and $\alpha = 0.64$ for ego orientation. The scale consist of 20 items of 5-point likert format, and each participant was assigned to a low, medium or high range depending on their location in the typified distribution, being the cutoffs the z scores that divide the normal distribution in equal thirds. For achievement goals, we used a set of 15 items on 5-point likert format questions selected of the questionnaire "Goals, expectations and values" (Alonso-Tapia, 2005). This questionnaire evaluates nine specific motivations, from those derived scores on the three goal orientations: learning orientation, performance orientation and avoidance of failure orientation. The reliabilities of the scales for the three orientations vary between $\alpha = 0.8$ and $\alpha = 0.9$. Academic

motivation was assessed by applying the Academic Motivation Questionnaire of Fernandez and Alonso-Tapia (Fernandez, 2009), which consists of four subscales (outcome expectations, perceived ability, interest and effort) assessed by 12 items, and whose general reliability of $\alpha = 0.8$.

Procedure:

We obtained the authorization of the management of the establishment, and requested permission from the parents in one of the regular meetings of parents. The battery was administered by groups, within one hour of regular classes, considering only those students who volunteered to participate after being informed of the purposes of the study and the type of participation, and whose parents had agreed too. Both parents and student signed an informed consent protocol. Students who do not agreed to collaborate were allowed to make an alternative activity in other areas of the school during the period of test administration.

Results:

Table 1 show the descriptive statistics of the variables of achievement goals and academic motivation for subgroups defined by family factors, and its respective results of variance analysis. Before analyzing the differences associated with these factors, has a place to mention that the average achievement goal oriented to learning for the whole group was $M = 3.5$, significantly higher than avoidance of failure oriented goals, $M = 3.1$ ($t = 6.057$, $df = 330$, $p = .000$), and this, in turn, was significantly higher than the average performance oriented goals ($M = 2.3$, $t = 9.439$, $df = 330$, $p = .000$). As shown in Table 1, the family climate had significant effect on achievement goal oriented to learning and performance and on academic motivation. For achievement goal oriented to task, the lowest average correspond to inexpressive family climate, which is significantly lower than the higher average for the family climate cohesive expressive. For achievement goal oriented to

Table 1. Descriptive statistics (mean and standard deviation) and results of analyzes of variance for variables achievement goals and academic motivation according family factors

Family factors	Group (n)	Achievement goals			Academic motivation
		Learning-oriented	Performance-oriented	Failure avoidance-oriented	
Family climate	Cohesive-expressive (181)	3.65 (.673) ^a	2.66 (.612) ^b	3.01 (.886)	3.49 (.672) ^d
	Expressive-conflictive-organized (33)	3.21 (.692)	2.66 (.739) ^c	3.12 (.926)	3.08 (.735)
	Conflictive-sedentary (39)	3.33 (.656)	2.37 (.691)	3.28 (.814)	3.17 (.720)
	Inexpressive-intellectual-cultural (32)	3.53 (.842)	2.54 (.517)	3.05 (.810)	3.43 (.713)
	Inexpressive (9)	2.71 (.749) ^a	2.31 (.991)	3.51 (.901)	3.16 (.515)
	Cultural-intellectual-organized (13)	3.08 (.651)	2.34 (.624)	2.80 (.589)	3.10 (.450)
	Disengaged-conflictive (14)	3.31 (.911)	2.67 (.655)	3.31 (.897)	3.34 (.576)
	Cohesive-conflictive (10)	2.86 (.517)	1.96 (.450) ^{bc}	2.990 (.392)	2.58 (.652) ^d
	Results of ANOVA ($F_{7, 323}$)	$F = 5.980$, $p = .000$	$F = 3.017$, $p = .004$	$F = 1.219$, $p = .291$	$F = 4.612$, $p = .000$

Parental socialization style	Autoritarian father -authoritative mother (112)	3.45 (.729)	2.54 (.670)	3.15 (.975)	3.37 (.680)
	Autoritative father – authoritarian mother (35)	3.66 (.856)	2.56 (.771)	2.98 (.1.025)	3.63 (.738) ^e
	Autoritative father and authoritative mother (184)	3.45 (.713)	2.59 (.616)	3.05 (.742)	3.28 (.693) ^e
	Results of ANOVA ($F_{2, 330}$)	$F = 1.242$, $P = .290$	$F = 0.232$, $p = .793$	$F = 0.661$, $p = .517$	$F = 3.998$, $p = .019$
Motivational family climate task-oriented	Low (106)	3.07 (.706) ^f	2.33 (.662) ^{gh}	3.07 (.791)	2.10 (.594) ^{jj}
	Middle (92)	3.47 (.553) ^f	2.66 (.569) ^g	3.02 (.762)	3.45 (.583) ⁱ
	High (133)	3.79 (.715) ^f	2.71 (.644) ^h	3.11 (.968)	3.56 (.748) ^j
	Results of ANOVA ($F_{2, 330}$)	$F = 34.029$, $p = .000$	$F = 12.071$, $p = .000$	$F = 0.332$, $p = .718$	$F = 22.785$, $p = .000$
Motivational family climate ego-oriented	Low (93)	3.60 (.782) ^k	2.53 (.620)	2.99 (.883)	3.49 (.757) ^l
	Middle (130)	3.36 (.692) ^k	2.57 (.641)	3.08 (.875)	3.23 (.670) ^l
	High (108)	3.50 (.729)	2.61 (.690)	3.14 (.820)	3.36 (.664)
	Results of ANOVA ($F_{2, 330}$)	$F = 3.170$, $p = .043$	$F = 0.440$, $p = .645$	$F = 0.757$, $p = .470$	$F = 3.947$, $p = .020$

a, b, c, d, e, f, g, h, i, j, k, l Pairs of means significantly different, according to post-hoc test (Scheffé or Tamhane according the variances were homogeneous or not).

performance, the lowest average is associated with cohesive conflictive family climate, which is significantly lower than those for cohesive expressive and organized conflictive expressive. The expressive cohesive psychosocial climate is also associated with higher average academic motivation, and the lower average of this variable corresponds to cohesive conflictive climate. Parental socialization style has only significant effect on academic motivation. In this case, the highest average corresponds to the children of authoritative fathers and authoritarian mothers, and the lowest to children whose parents are both authoritative. The motivational family climate oriented to the task had a clear effect on achievement goals oriented to the task and to performance, in which at higher levels of the first variable, higher averages on the second ones, in a trend that is replicated in the case of academic motivation. In contrast, the motivational family climate oriented to ego only had significant effect on achievement goals oriented to learning and academic motivation. Unlike the previous factors, the mid level of motivational family climate orientated to ego is associated with the lower average on goals orientated to learning and academic motivation, and the highest averages in these variables are associated with the lowest level of motivational climate oriented to ego. It should be noted that none of the factors had influence on achievement goals oriented to avoidance to failure.

A second series of analyzes of variance was performed considering the effect of achievement goals on the dimensions of academic motivation. To do this, the scores of the three goal orientations were segmented in the same way it was familiar motivational climate, standardizing and assigning them to low, medium and high as standardized score corresponded to the lower, middle or upper third of normal distribution. The results of these analyzes of variance are shown in Table 2, which shows

that achieving goals oriented to learning and performance have significant effect on each of the dimensions of the motivation to higher levels of attainment targets learning oriented or results, are generally higher averages in the dimensions of academic motivation. In contrast, achievement goals aimed at avoidance of failure not significantly affect any of them.

Table 2. Descriptive statistics (mean, standard deviation) and results of analyzes of variance ($F_{2, 331}$, p) for the dimensions of academic motivation by level (low, middle, high) of achievement goals

Achievement goals	Group (n)	Academic motivation			
		Outcome expectations	Perceived ability	Effort	Interest
Learning-oriented	Low (105)	2.95 (.873) ^a	3.09 (.831) ^{cd}	3.18 (.878) ^f	2.95 (.905) ^{gh}
	Middle (97)	3.12 (.829) ^b	3.38 (.730) ^{ce}	3.40 (.777)	3.33 (.818) ^{gi}
	High (129)	3.52 (.808) ^{ab}	3.69 (.796) ^{de}	3.62 (.829) ^f	3.67 (.843) ^{hi}
	Results of ANOVA	14.420, $p = .000$	16.586, $p = .000$	8.243, $p = .000$	20.525, $p = .000$
Performance-oriented	Low	3.02 (1.033) ^j	3.22 (.855) ^k	3.21 (.897) ^m	3.08 (.914) ⁿ
	Middle	3.27 (.781)	3.36 (.812) ^{kl}	3.43 (.851)	3.36 (.961) ⁿ
	High	3.38 (.724) ^j	3.64 (.754) ^l	3.60 (.752) ^m	3.58 (.770)
	Results of ANOVA	5.152, $p = .006$	7.861, $p = .000$	6.114, $p = .002$	9.005, $p = .000$
Failure avoidance-oriented	Low	3.33 (.977)	3.43 (.936)	3.39 (.942)	3.32 (.944)
	Middle	3.19 (.863)	3.38 (.728)	3.44 (.790)	3.29 (.841)
	High	3.15 (.723)	3.43 (.816)	3.41 (.816)	3.42 (.944)
	Results of ANOVA	1.274, $p = .281$	0.164, $p = .849$	0.132, $p = .877$	0.561, $p = .571$

a, b, c, d, e, f, g, h, i, j, k, l, m, n Pairs of means significantly different, according to post-hoc test (Scheffé or Tamhane according the variances were homogeneous or not).

Discussion and Conclusion:

The first fact that deserves comment is the way the achievement goal orientations are presented. In response to the statement at the beginning of the presentation regarding the perception of teachers about their students, one would expect a low learning orientation in them; however, this orientation is manifested most strongly, clearly distinguished over the avoidance of failure and performance. At the same time, avoidance of failure appears stronger than the concern about performance and its social consequences. This discrepancy with the perception reported by teachers in the literature may be talking about different evaluations between teachers and students, or that, in assessing the students have in mind a different kind of activities that teachers have in mind. If these perceptions are reconciled, so that teachers recognize the goals of student learning, it is possible that the educational dynamics follow a different path.

Another fact that stands out is how the sample is distributed on parental socialization styles. As expected, most of the families are recognized as authoritative by the students, that is, families in which both parents show high involvement and acceptance, while they are firm and impose rules, a pattern that has been widely recognized as the more adaptive. The pattern that follows is the combination of authoritarian father and authoritative mother, which not only match cultural stereotype of the father exercising authority and mother providing support, but, considered together, maintains support and firmness characteristics simultaneously present. The scarcity of combination of authoritative father and authoritarian mother could also be explained by cultural reasons associated with gender stereotypes, which this combination contravenes (Eccles, Frome, Suk Yoon, Freedman-

Doan, and Jacobs, 2000; Joel, Michael, Malanchuk, Eccles and Sameroff, 2001; Moya, 1985). More difficult is to speculate about the absence of families with both authoritarian parents in a sample whose size would suggest at least a small frequency. Today cultural trends could have created conditions for authoritarianism as a form of parenting is in retreat, but it is possible that the strength of the prevailing anti-authoritarian speech inhibit recognition or explanation of the authoritarian characteristics by students, or the characteristics of the school from which the sample was taken have imposed a bias in this regard.

In considering the influence of family climate on goal orientations and motivation favorable to learning, there is indeed a significant effect. What can be seen more clearly in this regard are the positive effect of family cohesion when accompanied by expressiveness, and its negative effect when associated with conflict. For achievement goal-oriented learning, blankness also appears as an interfering factor. However, contrary to expectations from the literature, parental socialization style showed no significant effect on achievement goals, although he did on academic motivation. In this case, points out that the greatest motivation occurs in the case of families where the father is authoritative and mother is authoritarian, which is exactly the reverse of the traditional cultural role, and highlights the relevance of how the father assumes his role, being parents who set limits and rules firmly while give support and show flexibility, those which facilitate the best motivational disposition towards academic tasks. The fact that it appears a significant effect of family climate but not of socialization style on achievement goals is an invitation to pay attention on this variable and examine in more detail the relationship between the two.

The motivational climate perceived by the student in his family has a significant impact both on their own goals and their academic motivation. The perceived emphasis on parents in the task-oriented goals predicted higher level of task goals, performance goals and motivation in students, and parent's greater emphasis on ego-oriented goals reduces academic motivation and learning goals in students, although this effect is less clear and strong that in the case of learning orientation.

Achievement goals of the student, in turn, have a significant effect on their academic motivation. Though probably for different reasons, learning-oriented goals and performance-oriented goals positively affect motivation. Thus, the effect of family factors on motivation could be direct or mediated by their influence on the goals, as Boon (2007) stated.

Other data that deserve comment are that failure avoidance goals are not affected by any of the family factors considered, and that, in turn, has no effect on motivation. In this regard, evidence has shown that avoidance goals would have a negative effect on motivation indirectly through emotional consequences that could interfere with both the motivation and the cognitive processes, which would be the opposite in the case of goals of learning and performance (Elliot & McGregor, 2001; Grant & Dweck, 2003; Linnenbrink, Ryan & Pintrich, 1999; Middleton & Midgley, 1997).

These results are moving in the direction of the objectives: first, as to show the relationships between family factors, achievement goals and academic motivation in a context that has not been previously explored such as Latin America, and then, as to show the importance of examining the role of family climate in relation to achievement goals and motivation. The limitations of this work, however, are obvious, and they are worth mentioning to put it in perspective. First, analyzes that have been conducted were independent of each other, so we do not consider the possible effects of interaction between variables, which could cause actual results. That is, what the analyzes show whether each factor is considered, by itself, shows or not an effect on the goals and motivation, but it was not considered the reciprocal influences that could increase or decrease the isolated effects. A second limitation concerns the instrument used to assess the motivational climate in the family. Although its psychometric properties are good, only evaluates two goal orientations, the learning-oriented and ego-oriented, within the last one includes both performance approach and avoidance of failure. By not distinguishing between the latter two approaches, the results could be masking effect, which may have been reflected in the less clearly effect of perceived ego-oriented goals in parents. Despite these limitations, the results are significant enough to suggest the desirability of moving towards more complex analysis with the same variables considering the simultaneous effect, to propose a model that integrates them.

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References:

- Alonso –Tapia, J. & Fernández, B. (2008). Development and initial validation of the Classroom Motivational Climate Questionnaire (CMCQ). *Psicothema* 20(4), 883-889.
- Alonso-Tapia, J. (1997). *Motivar para el aprendizaje. Teoría y estrategias*. Barcelona: EDEBE.
- Alonso-Tapia, J. (2005). Motivaciones, expectativas y valores-intereses relacionados con el aprendizaje: el cuestionario MEVA. *Psicothema* 17(3), 404-411.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261–271.
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process and content. *Psychological Bulletin*, 120, 338–375.
- Authoritative, Authoritarian, Indulgent, and Neglectful Families. *Child Development* 62(5), 1049-1065.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs*, 4(1), pt. 2.
- Boon, H. (2007). Low- and high-achieving Australian secondary school students: Their parenting, motivations and academic achievement. *Australian Psychologist*, 42(3), 212– 225.
- Chen, C. (2010). *The Impact of Temperament, Personality, and Perceived Parenting on Chinese Adolescents' Achievement Motivation and Academic Achievement* (unpublished doctoral dissertation). Hong-Kong: University of Hong-Kong.
- Cruz, L. (2011). *Adaptación y validación de la escala de clima familiar de Moos para población chilena en la ciudad de Iquique*, (unpublished bachelor dissertation). Universidad de Tarapacá, Iquique, Chile.
- Dornbusch, S.M., Ritter, P.L., Leiderman, P.H., Robert, D.F., & Fraleigh, M.J. (1987). The relation of adolescent parenting style to adolescent school performance. *Child Development*, 58, 1244-1257.
- Dweck, C. S. (1999). *Self-theories and goals: their role in motivation, personality and development*. Philadelphia: Taylor & Francis/ Psychology Press.
- Eccles, J.S., Frome, P., Suk Yoon, K., Freedman-Doan, C. & Jacobs, J. (2000). Gender-role socialization in the family: a longitudinal approach. In Eckes, T. Y Trautner, H.M. *The developmental Social Psychology of gender* (pp.333-360). Nueva Jersey: Lawrence Erlbaum Associates, Publishers.
- Elliot, A. & Church, M. (1997). A Hierarchical Model of Approach and Avoidance Achievement Motivation. *Journal of Personality & Social Psychology*, 72(1), 218-232.
- Elliot, A. & Harackiewicz, J. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, 70(3), 461-462.
- Elliot, A. & McGregor, H. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. *Journal of Educational Psychology*, 91(3), 549-563.
- Elliot, A. & Thrash, T. (2001). Achievement Goals and the Hierarchical Model of Achievement Motivation. *Educational Psychology Review*, 13(2), 139-156.
- Elliot, A. J. (1999). Approach and Avoidance Motivation and Achievement Goals. *Educational Psychologist*, 34 (3), 169-189.
- Elliot, A., & McGregor, H. (2001). A 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology*, 80(3), 501-519.
- Fernández, B. (2009). *Desarrollo y validación de un cuestionario de clima motivacional de clase* (unpublished doctoral dissertation), Universidad Autónoma de Madrid, Madrid, Spain.

- Friedel, J., Cortina, K., Turner, J., & Midgley, C. (2007). Achievement Goals, Efficacy Beliefs and Coping Strategies in Mathematics: The Roles of Perceived Parent and Teacher Goal Emphases. *Contemporary Educational Psychology*, 32(3), 434-458.
- Glasgow, K. L., Dornbusch, S. M., Troyer, L., Steinberg, L. & Ritter, P. L. (1997). Parenting styles, adolescents' attributions, and educational outcomes in nine heterogeneous high schools. *Child Development* 68(3), 507-529.
- Gonida, E., Kiosseoglou, G. & Voulala, K. (2007). Perceptions of parent goals and their contribution to student achievement goal orientation and engagement in the classroom: Grade-level differences across adolescence. *European Journal of Psychology of Education*.23(1), 23-39
- Gonida, E., Voulala, K. & Kiosseoglou, G. (2009). Students' Achievement Goal Orientations and Their Behavioral and Emotional Engagement: Co-Examining the Role of Perceived School Goal Structures and Parent Goals during Adolescence. *Learning and Individual Differences*, 19(1), 53-60.
- Grant, H. Dweck, C. S. (2003). Clarifying Achievement Goals and Their Impact. *Journal of Personality and Social Psychology*, 85 (3), 541-553.
- Gutiérrez, M. & Escartí, A. (2006). Influencia de padres y profesores sobre las orientaciones de metas de los adolescentes y su motivación intrínseca en educación física. *Revista de Psicología del Deporte*, 15(1), 23-35.
- Gutiérrez, M. & Escartí, A. (2006). Influencia de padres y profesores sobre las orientaciones de metas de los adolescentes y su motivación intrínseca en educación física. *Revista de Psicología del Deporte*, 15(1), 23-35.
- Joel, K., Michael, A., Malanchuk, O., Eccles, J. & Sameroff, A. (2001). Parents' roles in shaping early adolescents' occupational aspirations. *Child Development*, 72, 4, 1247-1265.
- Kahraman, N. & Sungur, S. (2013). Antecedents and Consequences of Middle School Students' Achievement Goals in Science. *Asia-Pacific Educational Research*, 22, 45-60.
- Kahraman, N. & Sungur-Vural, S. (2012). An investigation on students' personal achievement goals' and perceived parents' goal emphases in science. *Asia-Pacific Forum on Science Learning & Teaching*, 13(2), 1-19.
- Lamborn, S., Mounts, N., Steinberg, L. & Dornbusch, S. (1991). Patterns of Competence and Adjustment among Adolescents from Authoritative, Authoritarian, Indulgent, and Neglectful Families. *Child Development* 62(5), 1049-1065.
- Linnenbrink, E. A. , Ryan, A. M. y Pintrich, P. R. (1999). The role of goals and affect in working memory functioning. *Learning & Individual Differences*, 11 (2), 213-231.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Ed.), *Handbook of Child Psychology*. Vol. 4: Socialization, personality, and social development (pp. 1-101). New York: Wiley.
- Middleton, M. J., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An under explored aspect of goal theory. *Journal of Educational Psychology*, 89(4), 710-718.
- Moos, R. H. (1979). *Evaluating educational environments*. San Francisco: Jossey-Bass Publishers.
- Moya, M.C. (1985). Identidad social y estereotipos de género. *Revista de Psicología General y Aplicada*, 40(3), 395-400.
- Musitu, G. & García, F. (2001). *ESPA29: Escala de estilos de socialización parental en la adolescencia* (2nd ed.). Madrid, Spain: Tea.
- Musitu, G., & García, J. F. (2004). Consecuencias de la socialización familiar en la cultura española. *Psicothema*, 16, 288-293.
- Nelson, R. M. y DeBacker, T. K. (2008). Achievement Motivation in Adolescents: The Role of Peer Climate and Best Friends. *The Journal of Experimental Education*, 76 (2), 170-189.
- Nicholls, J., Cobb, P., Yackel, E., Wood, T. & Wheatley, G. (1990). Students' theories of mathematics and their mathematical knowledge: multiple dimensions of assessment. In G. Kulm (Ed.) *Assessing Higher Order Thinking in Mathematics*, pp. 137-54. Washington, DC: Am. Assoc. Adv. Sci.
- Ntoumanis, N. & Vazou, S. (2005). Peer motivational climate in youth sport: Measurement development and validation. *Journal of Sport & Exercise Psychology*, 27, 432-455.
- Pelegrina, S., García Linares, M.C. y Casanova, P.F. (2002). Los estilos educativos de los padres y la competencia académica de los adolescentes. *Infancia y Aprendizaje*, 25, 147-168.

Steinberg, L. (2001). We know some things: Parent-adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence* 11(1): 1-19.

Turner, E., Chandler, M. & Heffer, R. (2009). The Influence of Parenting Styles, Achievement Motivation, and Self-Efficacy on Academic Performance in College Students. *Journal of College Student Development*, 50(3), 337-346.