

RESEARCH ARTICLE	Maternal communication styles and adolescent psychological hardiness: a study of senior high school students.	
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Abstract		
<p>The family is a primordial educational institution, shaping the intellectual models and behavioral orientations of individuals. This influence is exerted through ongoing communication between parents and children. From the earliest age, daily interaction within the family helps to forge individual perceptions of the family communication pattern.</p> <p>Mother-child interaction is of particular importance. It evolves, develops and diversifies as the child grows, playing a crucial role in his or her cognitive and emotional development. Daily communication within the family has a direct impact on the personality and psychological structure of each individual.</p>		
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## Introduction

Mothers adopt a variety of communication styles, influenced by their own personalities, whether consciously or unconsciously. For this reason, researchers have conducted numerous studies on family communication in general, and more specifically on the mother's role as the most influential individual on children. However, due to the complexity of communication within the family, most of these studies focus on the impact of maternal communication within the broader framework of family interactions.

The aim of this study is to analyze the relationship between the mother's communication styles and the psychological hardness of high school seniors pupils in 5 high schools in Oran (Algeria).

### **Theoretical framework:**

Several research studies have explored these complex links. In 2013, Mina, Maryam and Narges conducted a study of 114 high school students in Shiraz, Iran. Their work revealed a statistically significant relationship between family communication styles and mental health, highlighting the importance of family interactions for adolescents' psychological well-being.

The impact of family communication is not limited to general mental health. Rueter and Ascan (2008) looked at the adjustment of adopted adolescents, comparing 384 adoptive families with 208 non-adoptive families. Their results showed that adopted adolescents are more likely to experience adjustment problems. However, a family communication style characterized by a strong orientation towards conversation was associated with a reduction in these problems, whether the children were adopted or not. This suggests that open and frequent discussion within the family may promote better adaptation.

Family communication has also been linked to specific behaviors, such as Internet addiction. Tajalli and Maryam (2017) examined this relationship in 230 Iranian students, revealing that an "indifferent" style on the part of the mother was linked to Internet addiction, and that this addiction was more pronounced among males.

In parallel, a study by Osredkar (2012) corroborated the link between family communication styles and Internet addiction. In addition, Osredkar conducted another study with 51 participants in the USA, confirming a relationship between conversational orientation and children's emotional intelligence, regardless of gender. These findings suggest that more open modes of communication can promote healthy emotional development.

Finally, Lippe and Møller (2000) explored the connection between parental communication styles and ego development in 39 adolescent girls. Their work indicated that the level of ego influences the ability to negotiate within the family. More specifically, this ability improves when there is harmony between the emotional and cognitive dimensions in communication between mothers and their daughters. This underlines the importance of balanced parental communication, favoring both emotional expression and reasoning, for the personal and relational development of adolescents.

Numerous studies have demonstrated the crucial role of parental, and more specifically maternal, communication in child development. Psychological hardness is an essential component of this development. A key concept in positive psychology, it describes the psychological qualities that enable individuals to maintain their mental health in the face of life's challenges. It gives individuals the ability to resist, adapt and actively seek solutions to problems.

In-depth research on this concept, for example, Al-Shammari (2014) examined the relationship between psychological stress and psychological hardness in 186 patients with psychosomatic illnesses (diabetes, hypertension, irritable bowel syndrome), confirming a statistically significant correlation between the two, particularly for severe levels of disorders. Similarly, Morissy & Hanna (2001), focusing on 327 adolescents, revealed a significant correlation between psychological stress and psychological toughness, also showing that the latter evolves with age and school level, and presents significant individual differences, notably in favor of girls in early adolescence.

The study by Dasgupta and Sen (2015), analyzing the influence of the family environment on the development of life skills and psychological toughness in 300 male adolescents, indicated a significant correlation between psychosocial skills and various dimensions of the family environment (expression, conflict, acceptance, cohesion, independence, leisure, organization). A clear link was established between psychological hardness (total score, challenge, control) and family environment, with the total score for family environment being a significant predictor of psychological hardness.

Finally, Kuzmin & Konopak (2016) investigated the effect of family structure quality on psychological toughness among 200 adolescents (aged 16-18), suggesting that adolescents from extended or complete families (more stable or supportive structures) may show greater resilience than those from single-parent families.

These studies converge to underline the crucial role of family environment and parental communication in the development of psychological toughness in children and adolescents. Psychological toughness is an essential protective factor against life's stresses and difficulties, and is clearly influenced by important relational and contextual factors. Understanding these dynamics is essential for promoting the psychological well-being of young people.

### **Methods:**

To carry out this study we used two scales as instruments with 305 students in the senior classes of secondary education, aged between 16 and 22 years and from various scientific and literary disciplines, schooled in five high schools in Oran. The first instrument is the mother's communication styles questionnaire, which comprises 43 items assessing the mother's parental communication style by four styles:

- The tolerant communication style: the mother is the weak link in the communication process. She compromises her opinions for fear of being rejected or ostracized by her son. This dimension comprises 11 items.
- Reproving communication style: this dimension reflects the predominance of blame and reproach in the communication process from the child's point of view. It comprises 11 items.
- Indifferent communication style: measures the mother's avoidance of engaging in a communication process with her children, and consists of 11 items.
- Protective communication style: refers to mothers who avoid engaging in discussions with their children, because they are convinced they know what's best for them. This dimension is measured by 10 items.

The second scale is psychological hardness (Al-Otaibi, 2014), which comprises 32 items. These items are divided into three dimensions:

- The commitment dimension: is measured by 10 items that assess an individual's degree of commitment to himself, his work and his environment.
- The Control dimension is made up of 10 items that measure an individual's ability to master situations, particularly stressful ones.
- The Challenge dimension: includes 10 items representing an individual's ability to adapt to new life situations.

### Results:

Hypothesis 1: We expect that the distribution of the sample according to the mother's communication style perceived by the children (boys and girls) will not be uniform, with a predominance of the perception of certain styles (for example, protective or tolerant) over others (such as reproving or indifferent), and potentially with differences in this distribution between the sexes.

To answer this question, we examine the results in the following tables:

**Table (01): Mother's communication style perceived or not perceived by male students, N= 114**

Mother's communication style perceived or not perceived by the pupil		Frequencies	Percentages
The protective communication style	Perceived	47	41,22 %
	Not perceived	67	58,77%
The reproving communication style	Perceived	08	07%
	Not perceived	106	93%
The tolerant communication style	Perceived	89	78,07%
	Not perceived	25	21,92%
The indifferent communication style	Perceived	07	06,10%
	Not perceived	107	93,90%

Table N° (01) reveals that the majority of the 114 male students surveyed perceive a tolerant communication style on the part of their mother (78.07%). On the other hand, the reproving (7%) and indifferent (6.10%) styles are very rarely perceived, suggesting that mothers make little use of these approaches or that students do not identify them as such. The protective style is perceived by 41.22% of students, but a majority (58.77%) do not perceive it, which is an interesting observation that could indicate nuances in the way maternal protection is expressed or understood by adolescents. Overall, the results suggest a maternal communicative dynamic perceived as predominantly open and accepting by this population of male students.

**Table (02): Mother's communication style perceived or not perceived by female students, N= 191**

Mother's communication style perceived or not perceived by the pupil		Frequencies	Percentage
The protective communication style	Perceived	88	46,10 %
	Not perceived	103	53,90%
The reproving communication style	Perceived	13	6,80%
	Not perceived	178	93,20%
The tolerant communication style	Perceived	147	77%
	Not perceived	44	23%
The indifferent communication style	Perceived	10	5,20%
	Not perceived	181	94,80%

Table N°(02), showing 191 female students' perceptions of their mothers' communication styles, reveals distinct patterns. Strikingly, the tolerant communication style is the most frequently perceived, with 77% of students (147) identifying it. This suggests a predominance of mothers perceived as open and permissive. In contrast, the reproving and indifferent communication styles are very rarely perceived, with only 6.80% and 5.20% of students respectively identifying them. This low perception of negative styles indicates that most mothers are not seen as having authoritarian or disengaged communication. The protective communication style shows a more balanced perception, but slightly tilted towards "not perceived" (53.90%), which means that almost half the students (46.10%) perceive this style. In sum, analysis of these data suggests a general trend towards maternal communication perceived as predominantly tolerant and not prone to disapproval or indifference in this population of female students.

#### Hypothesis2

We postulate that the impact of the perception of maternal communication styles on students' psychological hardness differs according to the mother's specific communication style. To test this hypothesis, we will analyze the results presented in the following tables:

**Table (03): Analysis of differences in the perception of maternal communication styles among male students according to their psychological hardness**

Comparison groups based on psychological hardness		the mean	The Standard deviation	Value (t)	Sig.
The protective communication style	Perceived, N=47	123,77	17,49	2,59	Significant at the 0.05 level
	Not perceived, N= 67	115,42	16,47		
The reproving communication style	Perceived, N=08	116,13	24,05	0,46 -	Not significant
	Not perceived, N=106	119,07	16,84		
The tolerant communication style	Perceived, N=89	120,63	15,51	2,08	Significant at the 0.05 level
	Not perceived, N=25	112,56	21,84		
The indifferent communication style	Perceived, N=07	106,29	25,50	2,00 -	Significant at the 0.05 level
	Not perceived, N=107	119,68	16,49		

Table N°(03) highlights significant relationships between the psychological hardness of male students and their perception of their mothers' communication styles. The data reveal that students who perceive a protective (Mean = 123.77) or tolerant (Mean = 120.63) communication style display significantly higher psychological hardness than those who do not perceive these styles (Means of 115.42 and 112.56 respectively), as evidenced by the significant t-values of 2.59 and 2.08 ( $p < 0.05$ ). Conversely, an indifferent communication style is associated with lower psychological hardness among students who perceive it (Mean = 106.29) compared to those who do not perceive it (Mean = 119.68), this difference being also significant ( $t = 2.00$ ,  $p < 0.05$ ). It is noteworthy that the disapproving communication style does not show a significant relationship with psychological hardness ( $t = 0.46$ , not significant), the means of the two groups being very close (116.13 vs. 119.07). These results therefore suggest that the perception of positive and supportive maternal communications is associated with greater psychological hardness among males, while the perception of indifferent communication is associated with lower psychological hardness.

**Table (04): Analysis of differences in the perception of maternal communication styles among female students according to their psychological hardness**

Comparison groups based on psychological hardness		the mean	The Standard deviation	Value (t)	Sig.
The protective communication style	Perceived, N=88	123,80	13,23	1,47	Not significant
	Not perceived, N= 103	120,74	15,15		
The reproving communication style	Perceived, N=13	126,85	19,25	1,22	Not significant
	Not perceived, N=178	121,80	13,93		
The tolerant communication style	Perceived, N=147	122	13,33	1,12	Not significant
	Not perceived, N=44	129,02	17,32		
The indifferent communication style	Perceived, N=10	132,50	18,39	2,37	Significant at the 0.05 level
	Not perceived, N=181	121,57	13,93		

Table N°(04) presents a comparative analysis of the differences in the perception of maternal communication styles among female students, based on their psychological hardness. For the protective, disapproving, and tolerant communication styles, the analysis does not reveal a statistically significant difference in psychological hardness between female students who perceive these styles and those who do not. For example, for the protective style, the average psychological hardness is 123.80 for those who perceive it and 120.74 for those who do not, but this difference is not significant. Similarly, for the disapproving style, the averages are 126.85 (perceived) and 121.80 (not perceived), and for the tolerant style, 122 (perceived) and 129.02 (not perceived), without any of these differences being statistically significant.

However, the situation is different for the indifferent communication style. Here, the group that perceives this style (mean of 132.50) shows significantly higher psychological hardness than the group that does not perceive it (mean of 121.57). The t-value of 2.37 and the significance at the 0.05 level indicate a statistically significant difference. In sum, these results suggest that, among the maternal communication styles studied, only the perception of an indifferent style is associated with increased psychological hardness in female students.

### Discussion:

The first hypothesis suggests that the distribution of the sample according to the mother's communication style perceived by the children (boys and girls) is not uniform, with a predominance of the perception of certain styles (e.g., protective or tolerant) over others (such as disapproving or indifferent), and potentially with differences in this distribution between the sexes.

The analysis of maternal communication styles perceived by high school students reveals significant trends in both boys and girls. In both cases, the tolerant communication style is predominant, with 78.07% of boys and 77% of girls perceiving it. This finding highlights the importance of an open and supportive family environment, which is corroborated by previous studies. For example, Aunola and Nurmi (2004) demonstrated that adolescents whose mothers adopt a supportive communication style develop better social skills and higher self-esteem.

However, it is essential to note the differences in the perception of communication styles according to gender. Research by Awiszus et al. (2022) indicates that boys often respond differently to parenting styles, favoring interactions that promote autonomy. Thus, although 41.22% of boys perceive a protective style, more than half do not recognize it. This suggests that maternal protection can be perceived as intrusive, as indicated by the work of Murray et al. (2012).

For girls, the perception of the protective style is also significant, with 46.10% of students recognizing it. However, this means that more than half of the girls do not perceive it, which could indicate an interpretation of this protection as a lack of autonomy.

In summary, these results suggest that maternal communication is predominantly perceived as open and tolerant, for both boys and girls. Nevertheless, differences in the perception of protective styles highlight the complexity of family interactions. According to Steinberg and Silk (2002), protective parenting styles can be perceived negatively, leading to tension between adolescents' need for protection and their desire for independence. It is crucial to continue exploring how these perceptions influence adolescent development and to adapt parenting approaches to meet the specific needs of each gender.

For the second hypothesis, the impact of the perception of maternal communication styles on students' psychological hardiness differs depending on the specific communication style of the mother. The results presented in the table highlight the significant impact of maternal communication styles on the psychological hardiness of male and female students in the final year of high school.

For male students, those who perceived a protective communication style displayed higher psychological hardiness (Mean = 123.77) compared to those who did not perceive it (Mean = 115.42), with a significant t-value of 2.59 ( $p < 0.05$ ). This suggests that emotional support promotes resilience, as indicated by previous studies (Masten, 2001; Bandura, 1997). Similarly, a tolerant communication style was associated with higher psychological hardiness (Mean perceived = 120.63 vs. non-perceived = 112.56,  $t = 2.08$ ,  $p < 0.05$ ), highlighting the importance of autonomy and self-expression, which is corroborated by research on the positive effects of open communication (Zapf et al., 2023). In contrast, the perception of an indifferent style is related to less psychological hardiness (Mean perceived = 106.29 vs. not perceived = 119.68,  $t = 2.00$ ,  $p < 0.05$ ), indicating that parental indifference is detrimental to emotional development, which is consistent with Steinberg's (2001) findings on the negative impact of parental neglect. Finally, the disapproving style does not show a significant relationship with psychological hardiness ( $t = 0.46$ , not significant), suggesting that this style is not as determinant as the others.

Regarding female students, the analysis of the results highlights differences in the perception of maternal communication styles and their impact on psychological hardiness. Protective, disapproving, and tolerant communication styles did not show a significant impact on students' psychological hardiness, which could indicate that these styles, although perceived differently, do not significantly influence girls' psychological hardiness. In contrast, the perception of an indifferent communication style is associated with significantly higher psychological hardiness, suggesting that maternal indifference could lead to feelings of abandonment or neglect. Paradoxically, this could strengthen resilience in some students by pushing them to develop more robust coping mechanisms. These findings are supported by Maccoby and Martin (1983), who discussed the impacts of parenting styles on children's psychosocial development, noting that the indifferent style can lead to varied results depending on the context. Furthermore, Baumrind (1991) also highlighted that parenting styles, including indifference, can influence how children develop resilience in the face of challenges. In sum, this study highlights the importance of maternal communication style perceptions in the psychological development of female students, paving the way for future research to explore how these family dynamics can influence the well-being of young girls.

### Conclusion:

This study reveals that maternal communication styles have a significant impact on the psychological hardiness of high school students, with a predominance of the perception of a tolerant style among both boys and girls, indicating an open and supportive family environment. The results show that boys who perceive a protective or tolerant style display higher psychological hardiness, while those who perceive an indifferent style display lower psychological hardiness. For girls, although the protective, disapproving, and tolerant styles do not display a significant impact, the perception of an indifferent style is associated with increased psychological hardiness, suggesting that this indifference may strengthen certain coping skills. These findings underscore the importance of maternal communication in the psychological development of adolescents and highlight the need to adapt parenting practices to meet the specific emotional needs of young people. In this regard, it is recommended to promote training for parents on effective communication styles, to encourage open communication between parents and adolescents to better meet the emotional needs of young people, and to conduct longitudinal studies to observe the evolution of these dynamics over time.



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