

The “mask” filtered by the new media: family functioning, perception of risky behaviors and internet addiction in a group of Italian adolescents

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Abstract

Recent literature underlines that, during adolescence, social networks are used to manage friendships. The reflection on the relational dynamics in social networks is based on the construction and shaping identity; online identity becomes not only personal information published on the Internet but also support in defining identity in peer group situations. Internet becomes an integral part of their experiential context, weakening influence of the family context on the development of identity. In this process, the web becomes both architect and theatre of Identity achievement, and it enables the adolescents to choose an impressive visual and comprehensive filter for their lives, contributing to the “Mask” construction or the genesis of a “Pseudo-Self”. The research goal is to investigate the influence of family functioning on the perception of risky behaviors as well as the dysfunctional use of the Internet in a group of Italian adolescents, taking part in a research-intervention, carried out within school organizational context. The research involved 110 high school students, aged between 15 and 18 (with an average age of 16.14 years), who, in test and test-re test phases, completed the following instruments: Family Assessment Device, Cognitive Appraisal of Risky Events, and Internet Addiction Test. Data show that the perceived behavioral control determines a higher risk perceptions; an elevated problem-solving capacity and family communication lead to reduce the internet use in students. In the field of identity development, the reflection on the relationship between the image and its representation on the social networks is fundamental, in order to help adolescents to become aware of their choices.

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1. Introduction

Adolescence is widely considered to be the most critical phase of a subject’s development process. During this time, adolescents are called to deal with the numerous changes (physical, psychological, and socio-cultural) that they are undergoing, and above all, they must face uncertainties, fragility and instability on a daily basis.

In this phase, the family is the favored context for learning beliefs and patterns that affect the broader regulatory social environment. For this reason, it is considered the privileged context

(on which to intervene) to reduce adolescents' behavior problems (Iacolino *et al.*, 2016). Some aspects of family functioning, such as poor supervision, discipline and inconsistent communication, seem to influence the adoption of risky behaviors.

During adolescence, a crucial phase in the developmental process, the family needs to be able to combine the need of independence with the creation of a solid family climate capable of containing adolescent uncertainties and to support the development of a real Self (Pellerone *et al.*, 2017a). This hypothesis is supported by a long line of research which proved that risk factors in the expression of addiction and the manifestation of "pseudo Self" are linked to family relationships, peer group, psychological functioning, negative life events and a socio-cultural process of normalization of the deviant behaviors.

1.1 The mask and developmental identity during adolescence

Among the many theories that deal with adolescent development in the scientific literature, two prevail: the Paradigm of Erikson (1950) and Marcia Model (1989). The first underlines that the existence of specific and developmental tasks is manifested when there is an exchange between the personal biological and psychological characteristics with the social and cultural demands of the environment that causes a crisis. This crisis offers the subject three different opportunities for resolution: development, regression and/or stasis (Erikson, 1950). Successful resolution of the adolescent phase is based on successful ego resolutions at the earlier stages of development.

The Marcia Model improves the Erikson's model and develops the theory of "states of identity", which can be defined as the styles used to challenge identity problems in adolescence (Pellerone, 2015; Pellerone, *et al.*, 2015). Specifically, the failure of this transition leads to the diffusion identity, in which the adolescent seems to be loose and without future plans (Luyckx *et al.*, 2006). Furthermore, the literature has highlighted that this identity can be connected to disorderly behaviors, impulsivity and lower abilities to cope with stress (Ramaci *et al.*, 2016; Specchiale *et al.*, 2013; Ramaci *et al.*, 2017a; Sprinthall & Collins, 1995).

In the light of these theories, Meeuss (1996, 2011) and Pojaghi (2008) considered the interaction between personal characteristics and social components in driving the shaping of personal identity to be essential. Similarly, Baumeister, Bratslavsky and Muraven (2018) describe identity as a mechanism of adaptation between the individual and the context, underlining the importance of history and culture which, through norms and values, offer the direction in which personal identities must move.

In this regard, the model by Côté (1996) seems interesting: the author introduced the concept of identity capital that refers to the quality and quantity of investments, i.e. the set of personal and environmental resources that a person makes in terms of construction of his/her own

identity. According to Côté, the identity can be defined as the combination of psychological resources - such as self-efficacy, critical thinking and flexibility (Santisi *et al.*, 2018) and the learned social passport (i.e. the set of cultural elements learned by the individual, school education, values, participation in the life of social groups); the latter would allow people to manage their behavior and lives in an adaptive way with respect to the context in which they live.

Berzonsky and Kuk (2008) refer to a cognitive-constructivist perspective, emphasizing that the ways in which individuals deal with the process of identity development are defined in terms of “styles”, a different analysis of the construction of the Self and the relationship with one's world; this personal approach to change can differentiate one individual from another on the basis of the relevant cognitive strategy, which appears as a dynamic process of social problem solving.

Berzonsky (2008) proposes an alternative vision to Marcia (1989), focusing above all on individual differences regarding personal experiences of coding, representation and social action that precede any situation in which the adolescent is forced to make an important decision. The author emphasizes how individuals are different not only according to the mere amount of exploration or commitment of possible alternative identities (Marcia), but also based on the strategies concerning cognitive and social processes for those activities that deal with problems and decision making.

Therefore, the process of identity development in adolescents appears complex due to their innate differences and the characteristics acquired from the external context, and in particular from the relationship with peers. To be appreciated in a culture of peers, which promotes conformity, young people may disguise their talent and develop alternative identities that are perceived as socially more acceptable. Sometimes, the weaving of this protective mask requires the subject to hide his love for learning, his interests that differ from those of his peers, and his aptitudes. If this presumed identity leads the adolescent to that so much cherished full social acceptance, the teenager may be afraid of taking his mask off. This is widely stressed by Beck (1992) who states that people must risk social dependence on others, even if this dependence damages their ability to “function” in a free manner and not dependent on the other.

In post-modern society, the desire to wear an identity mask appears to be facilitated by the use of technology and new media, which provide worlds for social interaction in a virtual space, worlds in which the adolescent can represent himself as a “character”, places where he can play a role near or far from the “real” Self. Therefore, the Self not only appears to be decentralized, but also multiplied without limits (Magnano *et al.*, 2014). Self-efficacy in learning and scholastic success: implications for vocational guidance.

Through the mediation of the Internet, for example, adolescents can interact with one another at a distance (Zhao, 2003), without being physically present; they interact with others at a distance in an incorporeal environment. The lack of non-verbal symbolic signals, which are fundamental to discern the hidden feelings and attitudes of others, allows the adolescent to face the challenge of obtaining an accurate knowledge of other people's evaluations and making others aware of his self-representations.

Existing research on the Self in cyberspace has mainly followed the Goffmanian trend focusing on self-presentation to others in the online environment (Inciardi & Surratt, 1998; Markham, 1998; Turkle, 1995; Waskul, 2003). This literature has shown that in the anonymous online world, people are more likely to engage in a variety of role-playing games, taking on different identities "pedaling through" multiple Selves (Turkle, 1995).

To study the representation of the Self in cyberspace, it is therefore necessary to distinguish between representation of the Self and the concept of the Self. Although closely related, these two aspects of identity self-construction are influenced by several factors; in fact, while the representation we transfer to others (or Self representation) is influenced by the fact that we believe that others can see us or not, the perception we have of ourselves (the concept of the Self) is influenced by the ability of others to "see" us and how they respond to us.

This distinction is important for another reason. According to the developmental perspective, a mature Self gradually evolves during childhood and adolescence (Erikson, 1950). Rudimentary abilities of self-awareness and social imitation emerge at an early age, but during adolescence individuals begin to develop an integrated vision of themselves "internalizing the expectations of significant others in the form of self-guidance" (Formica *et al.*, 2017; Ramaci *et al.*, 2017b). If, therefore, the adolescent fails to discriminate between representation of the Self and concept of the Self, he risks displaying an identity that is not real, manifesting a "pseudo-adult identity".

Litterature underlines the increased presence of "pseudo-adults", characterized by adolescents who are relatively advanced on pubertal maturation, but because of lack coping resources they tend to manifest "pseudo-adult" identities. Young adults with "pseudo-adult" profiles tend to claim an older age identity before their psychosocial maturity (Benson & Elder, 2011).

According to researches, "pseudo-adults" report higher levels of disadaptive behavior during adolescence; they tend to have parental relationships characterized by blurred generational boundaries and a reduced closeness with their family context (Benson & Elder, 2011).

With regard to the risk factors of a pseudo-adult identity, the searches are very discordant.

The exposure to new media images of adult liberties unaccompanied by the experience of responsibilities from parents could influence the construction of pseudo-adult identities (Galambos *et al.*, 2003). In fact, data suggest that advanced and excessive maturation during adolescence may generate disadaptive outcomes when there are reduced personal resources and a conflicted family context, characterized by the absence of responsibilities, expectations, and positive regard from parents.

Other research demonstrate that disadvantaged family contexts can lead to a “pseudo-adult” pattern of development, if coupled with distant parent-child relationships and dysfunctional peer-group context (Johnson & Mollborn, 2009).

Regarding the influences of the gender variable, research indicates that women manifest an earlier identity development than men (Johnson *et al.*, 2011). Women are more likely than their male peers to have adult pseudo identities, while men are more likely than women to report “anticipatory” identities, because of their subjective age tends to lag behind their perception of self in terms of psychosocial maturity.

In particular, the literature underline that women experience pubertal development earlier than men do, because of their adolescent experiences, that influence pre-mature engagement in adult-like behaviors. These process could promote the construction of the “pseudo-self” pattern among young women.

Furthermore, adolescent women tend to manifest a higher level of distant and conflictual relations with their parents than adolescent men, and this may hinder their development of psychosocial skills and accelerate the adoption of adult roles and an adult pseudo-identity (Benson & Johnson, 2009).

1.2 Risky Behavior

The numerous studies on typical and atypical behaviors in adolescence made it possible to highlight that the implementation of risky behaviors (such as the abuse of the Internet) must be interpreted as a meaningful action, which is inserted into one specific moment in one's life and in a particular context, to achieve personally and socially significant goals.

Jessor's theory on problematic behavior (Jessor *et al.*, 1998; Jessor *et al.*, 2003) offers a clear and explanatory idea of the role that risk and protection factors at an individual, interpersonal and social level play in the lives of adolescents, influencing their transverse involvement in problematic behavior. According to this theory, the protection factors reduce the probability of adopting problematic behaviors by providing, within a supportive social context, positive social

models of action and a certain degree of self-control and monitoring of the behaviors, in such a way as to preserve an effective family functioning.

Risk factors, on the other hand, increase the possibility of getting involved in dysfunctional behaviors due to greater individual vulnerability and exposure to social models of deviant behavior, also based on the contextual opportunities to adopt problematic behaviors. When the protection factors are high, the possibility of problematic behaviors is low because the potential presence of risk factors, which can compromise the development and adaptation of the subject, is neutralized. Researchers conducted on the basis of the theoretical model of Jessor and colleagues showed a strong relationship between the protection and risk factors identified by the theory, and different types of problematic behavior in both genders, at different ages, and in different socio-cultural contexts (Costa *et al.*, 2005). The studies reviewed on the single factors show that in the developmental paths the conditions of risk and protection are not rigidly defined in absolute terms for all individuals, but intertwine with each other in a complex and unpredictable manner giving rise to different developmental outcomes that are difficult to predict. Among the personal variables that belong to protection factors, two are particularly important: the awareness of the risk (although youngsters are aware of the negative consequences of problematic behaviors from the physical standpoint, they tend to underestimate them); and the values (i.e. the parameters adopted by the subject to evaluate something as socially or personally desirable). The literature on risk in adolescence also highlights that disapproval of deviance, the importance given to school experience, and religion represent important individual protection factors capable of affecting adolescent choices (Cairano *et al.*, 2009; Jessor, 1998).

The so-called “Internet addiction” has gained widespread interest in scientific literature since it was first proposed by Goldberg in 1996, defining it in general as the experience of physical, mental and social problems due to excessive use of computer and the Internet. Internet addiction has a strong negative impact on the interpersonal sphere of the subject, affecting his family life as well as friendship and work relationships. Internet addicts spend most of their lives at the computer, devoting their days to emails, chats, discussion forums and online games. In a way, we can say that Internet addicts reset their social lives by projecting them onto the virtual platform. It should be noted, however, that this is not recognized as a standard definition, as in 2013 the American Psychiatric Association decided to exclude this potential diagnosis from the Diagnostic and Statistical Manual of Mental Disorders (DSM V). Nonetheless, according to the literature mentioned by Musetti and collaborators (2018) in the review relating to the comorbidity between Internet addiction and psychiatric disorders, empirical studies show that the symptoms of Internet addiction are associated with several personological and

psychopathological conditions characterized by a significant clinical discomfort, both of internalizing and externalizing nature, including somatization, anxiety, depression, phobic disorders, substance abuse, dissociation, attention deficit disorder and hyperactivity, as well as maladaptive personality traits.

Today, Internet addiction is one of the most relevant social issues, also because the main target group are adolescents. In support of this, a meta-analysis of Internet addiction found that high school students are the group most at risk (quote). In this regard, the results of the study conducted by Şasmaz and collaborators (2014), which involved 1156 students aged between 15 and 17, showed that Internet addiction has an independent relationship with gender, school level, hobby, duration of daily computer use, depression and negative self-perception. It also showed that the prevalence of Internet use is higher in boys than in girls, and the rate of psychic symptoms becomes higher as the use of the Internet increases.

1.3 Family, Relationships and Risky Behavior

The integration of the legitimate need for independence and autonomy of children, with the cohesion of affections and with the negotiation of new relationship rules is a delicate task and it is responsibility of the family. Brown and Mann (1990) stressed that parents have a fundamental role in the process that leads adolescents to become autonomous and capable decision makers. Along the same lines, Pallini (2008) showed that a relationship of secure attachment with parents allows the adolescent to experience the emotional closeness that is at the base of the process of internalization of norms and parental values, which will become the points of reference for his future choices. PS, Problem Solving. This dimension refers to the ability of the family to overcome difficulties in such a way as to preserve effective family functioning.

Baumrind (1971) proposed a classification of the main parenting styles, adopting the criteria of severity (namely the degree to which the parents control the behavior of the children), and support (the ability of the parents to demonstrate warmth, affection and involvement). Based on the combination of these two dimensions, it is possible to identify four different parenting styles (Pellerone *et al.*, 2016; Pellerone *et al.*, 2017b): authoritarian (high control and low support); permissive (low control and high support); neglecting-rejecting (low control and low support); authoritative (high control and high support). In the light of this classification, literature demonstrated that adolescents who grow up in an authoritarian type of family tend to be argumentative, rebellious and unable to make decisions independently. Those who grow up permissively will tend to make their own rules and reject those imposed from outside; moreover, they will not recognize the role of safe guidance of their parents, and will therefore seek advice

and emotional support in their peers, becoming psychologically dependent on their friends. Adolescents who grow up in a neglecting-rejecting family are among the most disadvantaged as they lack a social guide that will lead them to have little self-control and display antisocial tendencies. Finally, adolescents educated with an authoritative style develop good self-esteem and a good sense of self-efficacy, respect the rules and internalize them by making them their own, achieve good results at school and, moreover, report very low levels of depression and anxiety and are less likely to be involved in antisocial behaviors, if compared to peers raised in families with an authoritarian, indulgent or indifferent style.

According to the two scholars, Brown and Mann, some other factors related to good decision-making in adolescence are: family cohesion, parent-child communication and parenting skills in conflict resolution. This dimension (PS, Problem Solving) refers to the family's ability to overcome difficulties in such a way as to preserve effective family functioning. By analyzing the literature, it is possible to appreciate that many researchers have tried to investigate in depth the link between parenting and the manifestation of antisocial behaviors by adolescents. The family plays an important protective role in the involvement of adolescents in risky behaviors. Specifically, the willingness of parents to communicate with their children and the perception by adolescents of being able to count on their parents are central to protecting adolescents from risk situations (Calandri *et al.*, 2004).

Particularly interesting is the research by Adalbjarnardottir and Hafsteinsson (2001) which studies how the knowledge of parental control and the quality of the parent-child relationship can be considered effective protection factors against risky behaviors. Parental control has shown in numerous studies to be a robust construct, which is directly associated with positive adolescent behaviors. It is interesting to note how much adolescents are receptive to parental monitoring: the mere perception of an authentic and daily parental control activates the fear of the negative consequences that they may face deciding to adopt antisocial behaviors, which will unlikely remain secret. In general, the less a parent is informed about their children's future plans, about which activities they carry out, which peers they see, the more likely the adolescent feels free to implement anti-social behaviors.

Branstetter and Furman (2013) share the same opinion, and highlight that risky behaviors in adolescence are conveyed by a complex interaction between intrapersonal and interpersonal risk factors, but among the latter, the parenting style is considered crucial. In addition to a function of support and openness to dialogue, the family also plays a role in control and supervision. In general, adequate supervision and monitoring of children's behavior is negatively correlated with the involvement in various risk behaviors and acts as an important factor in promoting well-

being in adolescence (Gray & Steinberg, 1999). However, parental authority is effective to the extent that children recognize that parents are entitled to intervene in the matter (Castrucci & Gerlach, 2006), which occurs when the adolescent finds a consistency between the attitude of the parents and the model of behavior they propose. The influence of parents is also exercised through the personal attitude they express towards the consumption of psychoactive substances. If parents do not disapprove a certain behavior, in the eyes of the adolescent, it feels an implicit approval of such behavior.

In conclusion, we observed that if the parents' task is to pass their knowledge and values on to their children - so that they can develop a healthy identity and fit properly into society, and avoid risky behavior -, at the same time the active role of children in acquiring these messages and making them their own is necessary for the success of this process (Cummings *et al.*, 2007; Maccoby, 1984; Persson *et al.*, 2007; Smith & Farrington, 2004; Steinberg & Silk, 2002).

2. Method

2.1 Participants

The research involved 102 high school students (88 males and 14 females), aged between 15 and 18 ($M = 16.14$; $S.D = 0.48$), who took part in an research-intervention. The general group of participants consisted of 110 students, of which 94 boys and 16 girls. Although all subjects agreed to be part of the research, there was a mortality rate of 7.5%; this happened because the instruments were handed out on two different days (one day for the test phase, and one day for the re-test phase), and any absence of students made it difficult to fully comply with the protocols.

The group of participants involved all students attending the last 3 years of high school; the research lasted for 1 year and it was divided in 3 parts:

- I. the first phase (or test phase), in which participants completed the *Family Assessment Device* to measure the family functioning, the *Cognitive Appraisal of Risky Events* to investigate the perception of risky behaviors, and the *Internet Addiction Test* to evaluate the possible presence of the psychopathological Internet use;
- II. the second phase (intervention phase) in which students attended a training and information course on the following topics: road safety education, life-styles, alcohol, drug, new addiction and civics. This phase ended with the participation in a team game with elimination, called “Zero-Risk”, in which participants challenged each other on questions related to the aforementioned topics. The “Zero-Risk” quiz game aimed to

train students on some topics related to prevention, compliance with rules and healthy lifestyles;

- III. the last phase (re-test phase) in which participants completed the same instruments of the first phase.

Activities and delivery of instruments took place during school timetable. School authorities and the students involved in the study gave their consent before the distribution and collection of the instruments. The questionnaires were anonymous, and the participants were informed of the aim and structure of the study. All participants provided written informed consent.

The research was approved by the Internal Review Board of the Faculty of Human and Social Sciences at the “Kore” University of Enna.

2.2 Goals and research hypotheses

The present research explores the influence of family functioning on Internet addiction and the perception of risky behaviors in a group of Sicilian adolescents, who participated in an action-research.

In particular, the hypothesis is as follows: the perception of a poor quality family context and the parental behavioral control determine a high level of Internet use; high behavioral control and a reduced problem-solving ability in the family context determines a higher level of expected involvement in risky activities; furthermore, it seems that a decrease in dysfunctional behavior could only be attributed to training and not to changes in the family climate during the three months of the training.

2.3 Instruments

Participants completed an anamnestic questionnaire, the *Family Assessment Device*, the *Cognitive Appraisal of Risky Events*, and the *Internet Addiction Test*.

Anamnestic data were collected through a questionnaire constructed ad hoc to acquire basic information, such as age, gender, and school year.

Family functioning was measured with the *Family Assessment Device* (FAD) by Epstein, Baldwin, and Bishop (1983) using the Italian version of Grandi and colleagues (2007). Each item consists of a statement and Likert scale (strongly agree, agree, disagree, or strongly disagree). The *Family Assessment Device* is based on a transactional-functional model and it contains scales measuring: problem-solving, communication, roles, affective responsiveness, affective involvement, and behavioral control. The alpha coefficients referred to seven subscales show that the highest level of reliability is recorded in the General Operation scale (.88), followed by: Affective

Responsiveness (.86), Problem-Solving (.78), Communication (.77), Affective Involvement (.73), Behavioral Control (.59) and Roles (.45). In the present study, Cronbach’s alpha coefficient is equal to .81 for Affective Responsiveness, .68 for Problem-Solving, .56 for Communication, .69 for Affective Involvement, .47 for Behavioral Control, and .43 for Roles (Grandi *et al.*, 2007).

The *Cognitive Appraisal of Risky Events* (CARE), by Fromme, Katz and Rivet (1997), is a questionnaire developed to assess outcome expectancies for the potential consequences of involvement in risky activities, defined as those activities which could result in both negative and positive consequences, namely: risky sexual behavior, heavy drinking, illicit drug use, aggressive and illegal behaviors, irresponsible academic/work behaviors, and high risk sports. It is a questionnaire with 90 items grouped in three scales: Expected Involvement (Care A), Expected Risk (Care B), and Expected Benefit (Care C). Each scale measures the following six factors: risky sexual behavior, heavy drinking, illicit drug use, aggressive and illegal behaviors, irresponsible academic/work behaviors, and high risk sports. In reference to the criterion-related validity, Cronbach’s alpha coefficient is equal to .90 for Expected Risk, .90 for Expected Benefit and .89 for Expected Involvement (Fromme *et al.*, 1997). In the present study, the Cronbach’s alpha coefficient is equal to .95 for Expected Risk, .95 for Expected Benefit and .93 for Expected Involvement

The *Internet Addiction Test* (IAT) by Young (1998) is a self-report instrument for adolescents and adults. It comprises 20 items scored on a five-point Likert scale (from 1 - not at all, to 5 - always). On the basis of the total score obtained on the test, the individual is placed into one of three categories: average online user (from 20 to 39) with full control on his/ her usage; experiences frequent problems because of excessive Internet use (from 40 to 69); or has significant problems because of Internet use (from 70 to 100). This instrument can be used to obtain a comprehensive profile of the subject’s Internet addiction as well as to identify discrepancies amongst raters, who could benefit from psycho-education. In reference to the criterion-related validity, Cronbach’s alpha coefficient is equal to .89 (Young, 1998). In the present study, the Cronbach’s alpha coefficient is equal to .88.

2.4 Data analysis

All the analyses were conducted with Statistical Package for the Social Sciences 23.0 (IBM Corporation, Armonk, NY, USA).

In reference to family functioning, perception of risk and Internet addiction, univariate analyses of variance (ANOVA) were conducted to verify the influence of gender and age on the dependent variables.

The hierarchical regression for separate blocks was used in order to explore predictive variables of perception of risk and Internet addiction, including anamnestic data (in the first block) and functioning family (in the second block) as predictive variables during the test phase.

T-Test for independent groups was conducted to compare the scores obtained during test and re-test phases.

Furthermore, the hierarchical regression is carried out in order to measure predictive variables of perception of risk and Internet addiction during re-test phase, including family context as mediation variable, assuming the absence of the mediating role of family, according to the Hayes' Methods (2003). In particular, the analysis of introduction to mediation, moderation and conditional process describes the foundation as well as the analytical integration, thereof in the form of "conditional process analysis" with a focus on process for SPSS, as the tool for implementing the methods discussed (Hayes, 2003).

4. Results

The first univariate analysis of variance (ANOVA), done to verify the influence of gender on dependent variables, emphasizes the main effect of gender on Expected Risk ($F=12.77, p<.001$) and Expected Benefit scales ($F=3.89, p<.05$); breakdown of the univariate effects shows that women got higher scores in Expected Risk than men (Men: $M=3.27, S.D=1.44$; Women: $M=4.67, S.D=1.46$), who manifest a higher level of Expected Benefit scales (Men: $M=2.57, S.D=1.41$; Women: $M=1.85, S.D=.91$).

In order to verify the influence of age on dependent variables, the second ANOVA emphasizes the main effect of age on the affective responsiveness ($F=2.71, p<.05$), the general level of family functioning ($F=3.49, p<.05$) and the expected involvement in risky activities ($F=3.36, p<.05$). In particular, the Tukey *post hoc* shows that the older students (18 years old) manifest a lower level of affective responsiveness and family quality, but a higher level of expected involvement in risky activities.

An analysis of hierarchical regression for separate blocks was used to explore predictive variables of Internet addiction, including gender and age in the first block, and the family assessment subscales in the second block. The analysis shows that predictors of Internet addiction are the perception of family control ($\beta=.22, t= 1.92, p<.05$) and a lower level of family context quality ($\beta=-.25, t= -2.27, p<.05$), and explains 15.1% of the overall variance. The data seem to confirm the research hypothesis.

The second analysis of hierarchical regression for separate blocks underlines that predictors of involvement in risky activities (Care A) are the following: being older and manifesting a lower level of problem-solving ability into the family context (see table 1).

Table 1: Model summary of hierarchical regression analysis that predicts the expected involvement in risky activities.

Model	Variables	R ²	Adjusted R ²	SE	β	T	P
1	Gender	.310	.096	.287	-.132	-1.419	.159
	Age			.213	.259	2.775	.007
2	Gender	.478	.229	-.122	-.122	-1.329	.187
	Age			.280	.280	3.086	.003
	Problem-solving			.216	-.216	-2.281	-.025
	Communication			-.137	-.137	-1.337	.184
	Roles			-.136	-.136	-1.248	.215
	Affective responsiveness			-.065	-.065	-.665	.508
	Affective involvement			-.070	-.070	-.619	.537
	Behavioral control			-.133	-.133	-1.221	.225
	General family functioning			.122	.122	1.147	.254

Abbreviations: β = Beta Standardized Coefficients; S.E = Standard Error.

Furthermore, female gender is the only predictive variable of the perception of risk for dysfunctional activities ($\beta=.34$, $t= 3.65$, $p<.001$), and explains 18% of the overall variance.

Another hierarchical regression shows that being older, having a low behavioral control in the family context, and a reduced problem-solving ability, predict the perception of benefits in risky activities, and explains 17.5% of the overall variance (Table 2). Data seem to confirm the research hypothesis.

Table 2: Model summary of hierarchical regression analysis that predicts the expected benefit of risky activities

Model	Variables	R ²	Adjusted R ²	SE	B	T	P
1	Gender	.269	.073	.366	-.153	-1.614	.110
	Age			.271	.197	2.087	.039
2	Gender	.418	.175	.368	-.131	-1.379	.171
	Age			.269	.189	2.015	.047
	Problem-solving			.277	-.179	-1.930	.050
	Communication			.460	.028	.267	.790
	Roles			.513	-.073	-.647	.519
	Affective responsiveness			.370	.018	.174	.862
	Affective involvement			.332	.073	.628	.532
	Behavioral control			.512	-.268	-2.376	.019
	General Level			.548	.059	.541	.590

Abbreviations: β = Beta Standardized Coefficients; S.E = Standard Error

T-Test for independent groups was conducted in order to compare the scores obtained during test and re-test phases.

T-Test analysis shows the presence of significant differences (Table 3): in particular, during the re-test phase, students appear to manifest a higher level of the expected risk and a lower level of the expected benefit than students assessed during the test phase.

Table 3 - T Test for independent group (test and re-test phases)

Measures	Test Phase	Re-test Phase	Levene's Test		Student's Test		
	M ± SD	M ± SD	F	P-value	t	df	P
Family context	2.4593 ± .27456	2.4742 ± .28826	.194	.660	-.377	201	.707
Care A	1.41 ± 1.09	1.44 ± .63	20.776	.000	-.238	201	.812
Care B	3.49 ± 1.52	4.04 ± 1.69	.095	.759	-2.509	201	.013
Care C	2.47 ± 1.37	2.06 ± 1.06	10.592	.001	2.284	201	.023
IAT	2.32 ± .66	2.40 ± .82	4.352	.038	-.758	201	.449

Abbreviations: CARE A = Expected Involvement; CARE B = Expected Risk; CARE C = Expected Benefit

Hierarchical regression was used in order to measure predictive variables of the cognitive appraisal of risky events and the Internet addiction during re-test phase, assuming: a) the predictive role of gender, age and above all the participation in training path, b) the absence of the mediating role of family functioning.

Results show that the age variable is the only predictor of the expected involvement in risky activities ($\beta=.33$, $t= 4.85$, $p<.001$), and explains 10.7% of the overall variance.

The second analysis underlines that predictors of the expected risk (or CARE B) are the following: male gender ($\beta=.19$, $t= 2.70$, $p<.01$), and having followed the training path ($\beta=.16$, $t= 2.22$, $p<.05$), and explains 17% of the overall variance.

Furthermore, confirming the research hypothesis, the process analysis (Hayes, 2003) shows the absence of the moderation effect of family functioning ($\beta=.88$, $t= 1.14$, $p=.26$).

Furthermore, male gender ($\beta=-.19$, $t=-2.82$, $p<.01$), and not having followed the training path ($\beta=-.17$, $t= -2.41$, $p<.05$), can be considered predictive variables of the expected benefit in risky activities (or CARE C), and explains 16% of the overall variance.

Also, the process analysis (Hayes, 2003) shows the absence of the moderation effect of family functioning ($\beta=-.51$, $t= -.83$, $p=.41$), hence confirming the research hypothesis.

Finally, results show that the age variable is the only predictor of Internet addiction ($\beta=-.18$, $t= -2.55$, $p<.05$), and explains only 14.1% of the overall variance.

5. Conclusion and Discussion

The present research explores the influence of family functioning on Internet addiction and the perception of risky activities in a group of Sicilian adolescents.

Preliminary data show that age affects the perception of problematic behaviors, in fact older adolescents, having developed a relatively stable personal identity, have a greater perception of risk. The outcomes confirm that in the last stages of adolescence, subjects acquire a greater maturity, which enables them to have a more exhaustive picture of the short and long-term consequences of their behavior.

During the test phase, data show that behavioral control - perceived within the family context - and perception of a poor-quality family context determine a high level of Internet use, confirming the first hypothesis and the literature, which underlines that dysfunctional family functioning is related to antisocial behaviors and Internet addiction during adolescence; instead, adolescents who grow up in a positive family environment gain a strong protective factor (Jessor, 1998).

According to the second research hypothesis, data highlight that being older while having a lower level of problem-solving ability determines a higher level of the expected involvement in risky activities; research data, confirming this hypothesis, underline that problem-solving is a way for family members to express their needs and/or feelings and, above all, to understand ambitions, hopes, fears, emotions and the reality of life in adolescents.

Similarly, control, poor problem-solving ability, perceived within the family context, but being older seem to be predictive of a high perception of benefits for carrying out risky activities; this confirms the literature which underlines the role of reduced parental control as a protective factor in adolescence, because authoritative parents allow adolescents to regulate their activities autonomously, avoiding the exercise of control and encouraging them, indirectly, to observe the rules; in contrast to this, children with laissez-faire family patterns have the highest levels of Internet use (Pellerone *et al.*, 2017c; Tajalli & Zarnaghash, 2017).

In addition, we wanted to study the impact of the training path on dysfunctional behaviors and Internet addiction, using the family climate as a moderation variable. In other words, we hypothesized that a decrease in dysfunctional behavior could only be attributed to training and not to changes in the family climate, during the three months of the training path.

Data of this research show that adolescents who followed the training path seem to manifest a lower level of expected benefit in risky activities and a higher level of expected risk. This result, confirming the effectiveness of the treatment, underlines how the awareness of risky and

harmful behaviors has changed in the students. Data confirm the literature that underlines that the perception of risky behaviors is characterized by two fundamental components, a cognitive and a behavioral component (Caplan, 2010; Tokunaga & Rains, 2016); the cognitive component seems to have changed in the participants in this action-research. In fact, the regression analysis shows that having participated in the training path seems to reduce the level of expected risk and to increase the level of expected benefit.

It is fundamental to point out that the training path did not change the levels of Internet addiction in the participants from phase T1 to phase T2, probably because the use of the Internet represents a deeply rooted habit in adolescents, who spend most of their time hidden behind technology; although age seems to be a predictive variable of Internet addiction in the T2 phase, it seems that older adolescents reduce Internet use more than younger ones from test phase (T1) to re-test phase (T2). Finally, during re-test phase, data show that Internet addiction and the involvement in risky activities don't seem to decrease from T1 to T2, probably due to the reduced duration of the training path.

Based on the results described herein, it is fair to emphasize the limits of this work, namely, the absence of a sampling method - and subsequently the lack of a representative sample -, generalization of the results, and external validity. An additional limitation is the absence of a longitudinal-type study design, which is more suitable for a research involving adolescents and their identity development.

Finally, the absence of a cross-sectional survey method makes it difficult to determine if the adverse family relational conditions (e.g., low support or problem-solving ability) are antecedents of, links to, or consequences of the risky behaviors. Therefore, identification of risk factors in individuals or in their environment is not enough to predict the future development, but it is necessary to consider the way in which certain features interact with the environment, modifying it and being, in turn, influenced by it.

Research data confirm that the way leisure time is spent can play a major role in the decision of young people to undertake antisocial behaviors. Spending some leisure time doing activities that require responsibility within a protected context, such as sport groups or volunteering, leads the adolescent to gain positive visibility, although the Internet is unquestionably one of the greatest achievements over the last years and its use is widespread, particularly in established market economies.

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