

## **Risk Assessment of adolescents' virtual relations**

**Hanaa F. A. Moubark (PhD)**

**High Institute of Social Work – Alexandria**

**Abstract:**

Virtual relations are the result of membership of virtual communities. Because of its significance, inevitability, availability, diversity, confidentiality and invasive nature and risks among certain groups especially the adolescents, the present study aimed at assessing the risk of adolescents' virtual relations. The study's sample consisted of 96 internet addict adolescents. Two tools; Internet Addiction list and Risk List of Adolescents Virtual Relations, were used in the research. The results showed the diversity of adolescents' virtual relations risks including ethical, cultural, psychological, educational, health and family risks. They also showed that adolescents are more susceptible to psychological risk and less susceptible to behavioral risk and that there is a highly significant correlation between being at risk and the ability to manage it virtual relations and that the adolescents have different estimations of risks and high abilities to manage them, except for the educational risk. The majority of risks; 93.75% are of medium degree and the majority of adolescents; 71.88% have high ability to manage the risks and there are differences between risk types regardless the exposure/ manage status.

**Keywords:** Risk- Risk Assessment -Virtual Relations.

**Introduction:**

Internet has become a tangible reality in our contemporary life; with its introduction, new virtual worlds have formed. The web enabled new media platforms to acquire control and power over social, economic and cultural communities (Holt 2012). The internet participated as a major breakthrough in communication revolution in forming a new space that is, Cyberspace; which forms a new framework for transnational and beyond place limits relations. It has played a role in forming relations that extend outside the, limits of physical boundaries and the face- to- face interactions. The users thereof, especially those of mutual interests, have created groups named "virtual community" as a new form of human interaction (Bishop 2000, p.472). A virtual community consists of people who interact together socially on a technical platform. The community is built on a common interest, a common problem or a common task of its members that is pursued on the basis of implicit and explicit codes of behavior. The technical platform enables and supports the

community's interaction and helps to build trust and a common feeling among the members (Leimeister, Sidiras, Krcmar, 2004, p.1).

One of the most invasive virtual communities are the social networks<sup>1</sup>. The participants' numbers there in have grown because they enable a person to participate in more than one group according to his/her interests and hobbies. The membership in such communities help enlarging the range of participation and sharing thoughts and information, thus creating a whole new aspect of social and human relations (Wellman & Et al 1996, Laine2006).

Virtual relations are the product of virtual communities membership as human relations; both virtual and actual, represent the emotional and cognitive media through which a man builds his/ her values and goals of life. Whether such relations are strong or weak, positive or negative, shallow or deep, serious or light, family or relative- related, friendship or interest related, each of those relations have its own impact on the individual's attitudes, values, goals and behaviors. The current research focuses on risk assessment of virtual relations among adolescents because of their significance, inevitability, availability, confidentiality, ease of formation and invasive nature of, as well as, the interaction and sharing the virtual relations achieve they now extend beyond the actual individual relations. The signs<sup>2</sup> refer that there is more preference for virtual interactions under the present challenges of the reality among certain groups, especially the adolescents group, due to their physical, cognitive, psychological and behavioral characteristics. Such relations addiction is one of the internet addiction<sup>3</sup> types. The unprecedented

---

1. Social networks are services established by major companies to gather users and friends to share activities and interests. Most of the social networks available are websites that provide services such as instant conversations, messages, e- mails, videos, blogging and file sharing. Social networks have two types: internet applications such as Facebook, tweeter, YouTube, blogs, chatting rooms and email and phone applications such as watts app and viber.

2. The increase in number of internet users in Egypt, their approximate number is 23 million by the end of 2010( Ministry of Communication and Information Technology ,2011), and The number of social networks users increased, Facebook is the world 8<sup>th</sup> nation in terms of subscribers number; 500 million (Hicks,2010).

3. Internet addiction: using the internet for more than 38 hrs. / Week; that is, 7 hrs. / Day. It includes many types of addiction: cyber sexual addiction, net compulsion such as gambling and online shopping, Cyber relationship addiction such as chatting, information overload, and computer games addiction. (Young, 1999a)

achievements in soft-wear, communication systems and the internet have led to unprecedented health, psychological and social risks, especially that the internet is a continuously evolving medium, with new properties and roles, therefore the adolescents' use thereof is changing all the time and requires alert in terms of the dangerous behaviors related to internet and its safe use (Valcke, De Wever, Van Keer, Schellens, 2011). Thus, there is deep and growing concern regarding merging technology in our lives and our failure to keep actual limits between the public and the private aspects of our lives (O' Sullivan 2012).

Adolescents' virtual relations are full of many risks, for they unload their energy, thoughts and suppressed desire there. They isolate themselves for long hours before the computer screens and mobile phones. All this might lead to behavior changes among them, so the adolescent could lie to hide his/ her real identity or it might require face- to- face meeting with the other party of the virtual relation. The change might lead to Chat addiction, pornography indulgence, being a victim to professional chatters who hunt down adolescents with problems in their environment in order to convert their religion or convince them of atheism, lure them into lower levels of pornography or to recruit them in service of enemy countries. The danger of such situation is those adolescents lack of awareness of such risks they might face due to their virtual relations (Halawa& Abel- Aatti 2011, p5-6).

There are several studies, tackling internet addiction and its relation to health, psychological, social and educational variables and these researches have reached some negative impacts of this addiction; depression (Caplan 2000), psychological disorders (Arnout, 2007), impulse (Gonzalez, 1998), psychological isolation (Nawla&Anand 2003), decline of self- esteem (Caplan 2000) , decline of social and emotional skills (Engelberg & Sjobery 2004), lack of time management ability(Blanco , Anglada, , Pérez, Arbonès, 2002, Tsai & Lin 2003), and decline in academic performance level(Kubey, Lavin, Barrows, 2001).

The present study is different from previous ones because it aimed at assessing the health, cultural, psychological, behavioral, educational, familiar and ethical risks of the virtual relations of

adolescents. 1. This study extends beyond the concept of negative impact to the concept of risks, 2. It tackled one of internet addiction aspects, that is, Cyber- Relationship Addiction/ virtual relations and 3. It discusses all the risks of virtual relations as they overlap, and have mutual impacts on different sides of adolescents' character; physical, psychological, behavioral, social and spiritual sides, while all the previous studies tackling risk assessment were limited to sexual risk.

There are many sexual risks, for example, Seto refers (2013a) to internet facilitated sexual assault and the fear of repeated assaults by the perpetrator. Seto mentioned (2013b) the risk imposed on children by children pornography offenders and their crimes. Black, Schmiege, Bull discussed (2013) the sexual behavior as the both virtual and actual risk for peers through social networks, where self- reported and peer- reported sexual behavior were included in a random research sample consisting of 1029 person from 162 virtual network and the results showed; multiple sexual partners, concurrent partners, sexual pressure and drug& Alcohol use. In their research, Pujazon-Zazik, Manasse, Orrell-Valente (2012) aimed at analyzing the personal data on the site "Mylol.net" which is an adolescents' dating site. 752 online personal profiles of 14-18 adolescents determine the risky content. The results refer that 27.7% of the profiles contained sex-related content, 15.8% sexual behavior, 13.8% alcohol use, 1.6% drug use, 6.8% smoking cigarettes and 0.9% violent behavior. O'Sullivan (2012) confirmed this; he concluded that adolescents tend to blur the boundaries between their lives private and public aspects on the internet. The vast majority of the profiles are fake just to attract and impress friends. Valcke & Et al (2011) presents an analysis of the internet risks based on a section longitudinal study of children's use of internet with a focus on the communication and content risks. The safe use index was calculated and the average results referred to a relatively low level of unsafe internet use and the paucity of parents or teachers' control and its weak influence on the unsafe online behavior. Lwin, Li, Ang (2012) considered online harassment a world widespread phenomenon with special impacts on adolescents who tend to getting involved in risky online behaviors. 537 young people were surveyed in a strata sample. The results showed that the acute online harassment

and the efficacy of response and self- capacity of protective online behavior were significant predictive indices for the behavior structure with varying degrees. Vandebosch & Van Cleemput (2009) discussed cyber bullying<sup>4</sup> among youth. A survey on 2052 primary and secondary school students showed that the cyber bullies through internet or mobile phones through the last 3 months are younger and mostly they were victims or witnesses to cyber bullying and also were traditional bullies. The young people who underwent cyber bullying on the internet or mobile phones during the last 3 month were more dependent on the internet, felt less popular and took more risk on the internet. Rice, Monro, Barman-Adhikari, Young (2010) examined the correlational relation between sexual health and using the internet including social networks. They examined internet use among 201 homeless adolescents. Results refers that among the surveyed adolescents, 96.5% reported internet use. Increased time online and recent engagement in exchange sex were both positively associated with online partner-seeking. Youth connected to family members online were less likely to practice exchange sex.

On the other side, some of the previous studies they tackled the following topics: the online child sex crimes offenders convicted of uploading child pornographic materials via internet (Osborn, Elliott, Middleton, Beech, 2010), or possessing online child pornographic materials (Buschman, Wilcox, Krapohl, Oelrich, Hackett, 2010). They also sought finding out the typical methods used by online sex-offenders; especially using luring and seduction behaviors in order to assess the crimes risk or the threat level imposed by the offender(Sharpe 2010)or assessing the risk of online sex crimes offenders (Middleton 2009, Sharpe2010).

Some of the previous studies encouraging e- safety <sup>5</sup> and the effects of privacy warning and privacy seals on risk assessment and online privacy behavior (Larose & Rifon 2007). Social networks reveal

---

4. Cyber bullying is any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others (Tokunaga2010).

5. E-safety: refers to the way that young people are taught about risks online, how they can protect themselves, and to whom they should report worrying activity (Barnard 2012).

information about such environment that imposes risks, as communicating with people via internet. In a sample consisting of 256 adolescents using Facebook, authors found a relation between having a negative experience, privacy knowledge and behavior. The negative experience mentioned on Facebook included bullying/ mean treatment, unwanted contact, unintentional disclosure and misunderstanding. The adolescents who mentioned being in negative experiences are more prone to protect their privacy and this relation is attenuated by privacy settings knowledge (Christofides, Muise, Desmarais, 2012).

The adolescents' addiction of virtual relations is explained in this study through the cognitive behavioral approach. The main theme of the cognitive behavioral approach is that not only what happens to us that affects our mood and behavior, but how to interpret such events and our beliefs of the world. So "if people think right they will do right" and the events often happen because of beliefs and that the emotional consequences of the events are results of belief regarding the event and not the event itself (Bennett 2002, P 93, Tavris & Wade 1997, P. 266, Milner & O Byrne 2002, P. 169, Mcleod 2003, p135).

According to the cognitive behavioral model, adolescents' addiction to virtual relations and their perception and interpretation of such relations and their significance to them, For example, these relation are always available in any time or place, do not obligate them, confidential, eliminate shame, have no controls. These relations are a chance to express feelings, do not have the burden of forming face-to-face relations, do not require communication skills, can be terminated anytime, the identity can be masked, might become actual relations. So, adolescents' thoughts about these relations make them driven towards them and supporting them for the pleasure, happiness and satisfaction they get from them. Sometimes there success in these virtual relations can be an element in their success in actual relations as they include training that help them avoid actual relations depressions, especially the adolescents' desire to enter a new attractive world without any control or limits.

Virtual relations in the present study means: the relations between adolescents via social networks, especially Facebook<sup>6</sup> through the interaction actions including; post, share, invite, block, like, create, call, comment, and poke, either public with virtual friends on the timeline or in closed groups via chat or messages.

Risk originally meant calculating the probabilities of events, both positive and negative and yet increasingly, in social work at least, has come to be associated with negativity or adversity: 'the relative variation in possible loss outcomes'. Risk is defined as: '[the] nature, likelihood, frequency, duration, seriousness and imminence of an offence' (Barry, 2007, p6). Risk can be defined as 'the possibility of beneficial and harmful outcomes and the likelihood of their occurrence in a stated timescale' (Smethurst 2011, 169).

Risk assessment is inherently subjective and represents a blending of science and judgment with important psychological, social, cultural, and political factors (Sloyic, 1999, p 689). Risk assessment has been defined as 'the process of estimating and evaluating risk, understood as the possibility of beneficial and harmful outcomes and the likelihood of their occurrence in a stated timescale'. Two models of risk assessment have been identified (Barry, 2007, p6):1. The risk-taking model (risk is normal and positive and assessment focuses on mental wellbeing, rights, abilities, choice and participation); and 2.The risk minimization model (which targets those most at risk and assessment focuses on physical health, danger, control and incapacity). The aim of risk assessment is to consider a situation, event or decision and identify where risks fall on the dimensions of 'likely or unlikely' and 'harmful or beneficial' (Smethurst 2011, 169).

Risk in the present study is the state at which an adolescent feels and realizes the possibility of getting harmed due to virtual relations during a period the adolescent describe as brief with the probability of inability to control such harm. Risk assessment in the present study is: a process of estimating the risks adolescents might undertake because

---

6. Facebook: Facebook continues to dominate the global social media landscape, claiming 1.366 billion active users in January 2015. Crucially, 1.133 billion of the platform's global users – 83% of the total – now access the service through mobile devices (Kemp, 2015).



of their virtual relations and their ability to manage such risks, through the following hypotheses: 1. Adolescents' virtual relations lead to ethical, cultural, psychological, behavioral, educational, health and familiar risks, 2. There is a statistically significant relation between risk and the ability to manage them, 3. There are statistically significant differences between different types of risk (exposure status), 4. There are statistically significant differences between different types of risk (management status).

### **Methodology:**

The present study belongs to group of risk assessment studies. It is a quantitative study based on the calculating negative probabilities of events and it combines two types of risk assessment tools; clinical and actuarial depending on the risk minimization model, which targets those most at risk and assessment focuses on physical health, danger, manage and incapacity. The study sample consisted of 96 adolescents; 84 male adolescents from Obour Youth Center, Qabary, Western District, Alexandria and 12 female adolescents from Nasr Youth Center, Moharem Beq, Middle district, Alexandria. Respondents aged from 14-18 years, have Facebook accounts and were internet addicts according to measures taken through 6 months period on monthly basis by the internet addiction checklist. Youth centers were chosen because of sample availability, regular attendance, and the respondents' approval; thus enabling taking multiple measurements throughout the six months period. The small number of female respondents is result of low number of female sample members who met the sample criteria, initially 37 females, regardless their regular attendance in monthly measurements of internet addiction and the initial female sample consisted of 179 respondents. The present study relied upon the following tools:

First: Internet Addiction list: that consist (8) of Criteria for addiction listed in the Diagnostic and Statistical Manual of Mental Disorders (4th Ed.) (American Psychiatric Association, 1994). Young (1996) developing these criteria. Addiction is present when clients answer yes to five (or more) of the questions during a 6-month period. This list offers a work able definition of Internet addiction to help us differentiate normal from Compulsive Internet use (Young, 1996b,

2004c). Internet Addiction list validity was tested through applying concurrent validity using Internet Addiction Test (IAT) by Dr. Kimberly Young. It consists of 20 items<sup>7</sup> that measures mild, moderate and severe level of Internet Addiction<sup>8</sup>. The criterion test measuring results were compared with the current list through correlation coefficient between the two measures results on the same sample, n= 22 adolescents meeting study's sample criterion. Internet addicts were the ones who replied with yes to five or more on "the internet addiction list" and who scored 80-100 points in the internet addiction test and the criterion test was applied by other researchers. Pearson correlation coefficient was (.425\*<sup>9</sup>), a positive significant one referring to the tool's validity in measuring adolescents' internet addiction. This leads to an important result, that either of the two tools are reliable in measuring internet addiction. The criterion test can measure internet addiction without the need to measure through a 6 months period as in the tool used in this research and this result could not have been reached without comparing the results of both tools in present study. List reliability was tested through the Test Retest Reliability method, as the list was applied for a second time on the same group of respondents after 21 days and Pearson correlation coefficient of both results, it was .981\*\*, so it refers that the list is reliable.

Second: Risk List of Adolescents Virtual Relations (author): This list contained 40 risks grouped into seven main aspects. First aspect ethical risks (6), second cultural risks (3), third aspect: psychological risks (5), forth: behavioral risks (14), fifth aspect: educational risks (3), sixth: health risks (6), and seventh: familiar risks (3). The respond on the list included two variables: the extent of adolescent's risk exposure (exposure status) and the adolescent's ability to manage the risk (management status) according to the following measure: 0 not applicable, 1 rarely, 2 sometimes, 3 always. The minimum score was

---

7. The phrase "intimacy with your partner" was replaced with than family relationship, in the item 3.

8. Young, K. Assessment of Internet Addiction, The Center for Internet Addiction Recovery, [www.netaddiction.com](http://www.netaddiction.com)

9.\* Significant (.05), \*\* Significant (.01).

40, medium score was 80, full score was 120, and accordingly the risk rates and management rates were low 0- 40, medium 41- 80, and high 81-120. The validity of Risk List of Adolescents Virtual Relations was tested by using three types of validity. First: content validity; via reviewing the literature, research and studies discussing internet addiction and the virtual relations risks, second face validity through presenting the primary version of the list to a group of judges, third; contrasted groups; which is a kind of Concurrent validity. The list was applied to two groups of adolescents who meet the study sample's criteria and are contrasted in "internet addiction". Each group consisted of 20 adolescents, the first one was internet addicts and the second was non- addicts according to the internet addiction list results. The differences between the two groups were calculated and the result refers that there are statistically significant differences between the two groups; 8.526\*\* in the risk exposure variable and 3.020\*\* in the risk management variable, thus referring to validity. List reliability was tested through Test retest reliability. The list was applied for a second time on the same group of respondents after 21 days and the Pearson correlation coefficient between the two results was calculated; it was .448\*\*for case of exposure and .691\*\*for management variable, thus reflecting reliability.

Data were statistically analyzed using some descriptive measurements (central and variability), person correlation coefficient and student (T) testes. However, comparisons between the seven types of risk under both exposure and management were carried out using analysis of variance and least significant difference values at (0.05) probability level. (L.S. D<sub>0.05</sub>) used to compare between means according to (steel steel and torrie 1960).

## **Results:**

### **1- Risks of adolescents' virtual relations and their abilities to manage them:**

**1-1Ethical risks:** Table 1 shows the nature of ethical risks facing adolescents due to their virtual relations. This is of the least types of risks compared to other types of risks;  $R.S^{10} = 44.27$ . According to the

---

10. R.S : Relative strength for category

respondents the ethical risks were rated as follows; first Using billingsgate  $\bar{x} w^{11}=1.75$ , Violating others' privacy  $\bar{x} w=1.42$ , sharing porn images  $\bar{x} w=1.25$  and finally; as the least risk; sexual relations  $\bar{x} w=1.15$ . The adolescents showed very high ability to manage ethical risks;  $R.S=75.52$ . The most manageable risk was Sharing porn images/sites, at the first place;  $\bar{x} w=2.36$ , second sexual relations  $\bar{x} w=2.30$ , then Cyber Bullying  $\bar{x} w=2.21$  and their ability to manage risk declined in terms of Using billingsgate/Violating others' privacy which was forth.  $R.S$  for ethical risks is less 44.27 in the risk in case of exposure and higher in the case of management 75.52. In other words despite the paucity of adolescents' exposure to ethical risks they have strong ability to manage such risks always=52.08%. This might be because of the religious tendency and the nature of social upbringing in eastern communities with religious majority. This adds to the confidentiality surrounding pornography in the community generally and among adolescents in particular in a community that resents it and does not tackle legitimate sexual relations in public. So, there is a significant difference,  $p.01$  in favor of managing risks ( $T \text{ cal.} =7.783^{**}$ ). There is a highly significant negative correlation ( $R=-.679^{**}$ ) between ethical risk exposure and the ability to manage them. The value reveals the paucity of adolescents' exposure to ethical risks and their high ability to manage them. The evidence of that is the least of ethical risks is sexual relations comes in the sixth position in case of exposure and second in case of management, while the worst risk Using billingsgate comes first in case of exposure and last in case of management. The Coefficient of variability is high 17.10% in case of exposure to ethical risks and low 3.94% in case of their management for such risks. This reflects their difference in estimating their exposure to ethical risks to be higher than their ability to manage them. Which means that they are different in estimating the ethical risks they face because of their virtual relations and that they are similar about their ability to manage them.

**2-1 Cultural risks:** Table 2 shows the nature of cultural risks the adolescents face because of their virtual relations and they are of

---

11.  $\bar{x} w$  :Weighted Mean

medium degree compared to other risks; R.S=50.93. These risks were of the following order according to the adolescents' ratings: first "Adopting violence urging ideas"  $\bar{x} w = 1.60$ , second "Adopting social racial ideas; race, color, sex and religion"  $\bar{x} w = 1.50$ , third "Adopting racial political ideas"  $\bar{x} w = 1.48$ . The adolescents showed high ability for managing cultural risks; R.S=75.58 and they more managing in terms of Adopting racial political ideas/ violence urging ideas;  $\bar{x} w = 2.29$  followed by social racial ideas; color, sex, race and religion;  $\bar{x} w = 2.22$ . R.S for cultural risk was 50.93 in case of exposure, which is less than in case of management 75.58. Meaning that despite their low exposure to cultural risks (rarely= 62.84%) they do have the power to manage these risks (always=50%). This could be a result of the relative homogeneity of the Egyptian society especially in terms of race and religion. This was confirmed by a significant difference,  $p .01$  in favor of risk management. (cal. =19.689\*\*). There is highly significant correlation ( $R=.359^{**}$ ) between exposure to cultural risks and the ability to manage them, this value refers that in case of exposure to cultural risks the adolescents' ability to manage them increases. Another confirmation of this is that "Adopting violence urging ideas" which came first in case of exposure also came first in case of management. The coefficient of variability is relatively high; 4.38% in case of adolescents' exposure and low 1.86% in case of their management of such risks. Meaning that they are different in estimating the cultural risks they face due to their virtual relation and are similar in terms of their high ability to manage them.

**3-1 Psychological risks:** Table 3 shows the nature of psychological risks of adolescents because of their virtual relations. These are of the worst risks compared to other risks; R.S =59.79. The first psychological risk according to adolescents' ratings was "Mood swings"  $\bar{x} w = 2.01$ , second "Anxiety"  $\bar{x} w = 1.84$ , then "Isolation"  $\bar{x} w = 1.74$ . The adolescents showed strong ability to manage psychological risks; R.S =69.3. The most manageable risk was Depression  $\bar{x} w = 2.10$ , followed by Self- estimation problems in the second place  $\bar{x} w = 2.8$ , then Anxiety in the third place  $\bar{x} w = 2.07$ . R.S for psychological risks aspect was lower in case of risk exposure 59.79 and higher in case of risk management 69.03. Meaning that the

adolescents' ability to manage psychological risks is higher than the risks themselves, so they are capable of managing these risks no matter how extensive they are, a significant difference at P.05 favoring risk management confirms that. (T cal. =4.17\*). There is a highly significant negative correlation ( $R=-.573^*$ ) between psychological risks and the ability to manage them, this value refers that as the intensity of psychological risks the ability to manage them decreases and vice versa. This confirmed through the fact that the highest risk is Mood Swings that came first in case of exposure and came before last in case of management and that the last psychological risk "Depression" comes at the fifth place in case of exposure and comes first in case of management. The Coefficient of Variability is high 12.94% in case of adolescents' exposure to psychological risks and low 1.20% in case of adolescents' management of such risks. This reflects their difference in estimating their exposure to such risks more than estimating their ability to manage them. Meaning that they are different in estimating the psychological risks they face due to their virtual relations and are similar in terms of their high ability to manage them.

**4.1 Behavioral risks:** Table 4 shows the nature of behavioral risks the adolescents face because of their virtual relations. This type of risks is the least compared to other risks according to adolescents' rating; R.S =41. The first behavioral risk was "Violence"  $\bar{x} w=1.63$ , followed by "Turning virtual relations into real ones"  $\bar{x} w=1.61$ , then "Prostitution/ Joining terrorist groups"  $\bar{x} w=1.26$ . The fourth risk was "sexual abuse"  $\bar{x} w=1.23$ , and the least of the risks was Drug Addiction in the tenth place  $\bar{x} w=1.09$ ; then Alcoholism;  $\bar{x} w=1.08$ , Homosexuality at the twelfth and last place  $\bar{x} w=1.07$ . The adolescents showed high ability in managing behavioral risks; R.S =80.65. The most manageable risk was Atheism that came at the first place  $\bar{x} w=2.53$ , then Sexual abuse  $\bar{x} w=2.47$ , Alcoholism / Homosexuality  $\bar{x} w=2.46$ , Prostitution  $\bar{x} w=2.44$  and the adolescents' ability to manage Turning virtual relations into real ones decreased  $\bar{x} w=2.27$  which came at the tenth and last place according to their ability to manage behavioral risks. R.S for behavioral risks aspect is less; 41 in case of exposure and higher 80.65 in case of management. Despite the rarity

of their exposure to behavioral risks (rarely=81.99%), they have great ability to manage these risks (always= 64.51%), a significant difference at P.01 confirms this favoring risks management (T cal. =20.848\*\*). There is a highly significant negative correlation ( $R=-.518^{**}$ ) between behavioral risks exposure and the ability to manage them, the value refers to the paucity of adolescents' exposure to behavioral risks and the increase of their ability to manage them. What confirms this is that "Violence" comes at first place of behavioral risks in case of exposure and in the fifth place in case of management and that; the least of these risks; that is, Homosexuality come in the twelfth and last place in case of exposure and comes in the third place in case of management. The Coefficient of Variability is high 14.35% in case of adolescents' exposure to behavioral risks and low 2.46% in case of their management of such risks. This reflects their difference in terms of exposure in a higher degree than estimating their abilities to manage such risks. Meaning that they are different in estimating behavioral risks they face and are similar in their ability to manage these risks.

**5-1 Educational risks:** Table 5 shows the nature of educational risks facing adolescents because of their virtual relations and this type is of the medium risks compared to other risks;  $R.S = 52.31$  and these risks according to the adolescents were School neglect, in the first place;  $\bar{x} w = 1.60$ , followed by Online Chatting in the second place;  $\bar{x} w = 1.56$ . The adolescents showed great ability to manage educational risks;  $R.S = 74.77$ . Their highest management was of the "the School neglect" risk  $\bar{x} w = 2.35$ , followed by the Online chatting risk  $\bar{x} w = 2.34$ .  $R.S$  for the educational risks aspect was less 52.31 in case of risk exposure and higher; 74.77, in case of managing them. Meaning they have high ability to manage the educational risks and this is because of the nature of such risks and that their consequences, if they last, are within a limited period and that such risks can put them at risk of parental punishment, admonition and reproach. There is a significant difference at P.05 favoring risks management (T cal. =7.286\*). There is a highly significant positive correlation ( $R=.774^{**}$ ) between exposure to educational risks and the ability to manage them, the value reveals that in case of increased exposure to educational risks among



adolescents their ability to manage them increases. This is confirmed as the most educational risks, that is; School Neglect came in the first place in case of exposure and came first in case of management. The coefficient of variability was relatively low 2.03% in case of adolescents' exposure to educational risks and relatively high, 8.18%, in case of their management for such risks. In other words adolescents are similar in their estimation the educational risks, due to virtual relations and are different in their abilities to manage them.

**6-1 Health risks:** Table 6 shows the nature of health risks present among adolescents because of their virtual relations, such risks are of medium degree compared to other risks;  $R.S=50.35$ . The highest health risk according to adolescents' rating was sleep disorders  $\bar{x} w=1.76$ , next was Eye diseases  $\bar{x} w=1.59$ , then Eating disorders  $\bar{x} w=1.56$  and the least risk was Obesity in the sixth and last place  $\bar{x} w=1.22$ . There was a great ability among the adolescents to manage health risks;  $R.S=76.45$ . The most manageable risk was obesity  $\bar{x} w=2.45$ , followed by eating disorder  $\bar{x} w=2.33$ . Their managing ability decreased in terms of Bone/ Eye diseases, at the fourth place,  $\bar{x} w=2.25$  and Eating disorder came in the last place  $\bar{x} w=2.21$  in terms of their ability to manage health risks.  $R.S$  for the health risk aspect was less in case of exposure, 50.35 and higher in case of management 76.45. In other words the adolescents believe that they always can manage all of their life aspects including such risks and a significant difference at  $P .01$  in favor of risks management ( $T \text{ cal. } =7.439^{**}$ ), confirms this conclusion. There is a highly significant negative correlation ( $R=-.841^{**}$ ) between health risks and the ability to manage them. This value refers that as the intensity of health risks increases the ability to manage them decreases and vice versa. This is confirmed by the fact that the highest risk; sleep disorder comes at first place in case of exposure and at the last place in case of management and that the least of health risk; that is obesity comes in the sixth place in case of exposure and in the first place in case of management. The high coefficient of variability 12% in case of adolescents' exposure to and low 3.75% in case of their management of such risks. This reflects that the difference among adolescence in terms of health risks exposure is more than the difference among them in terms of



estimating their abilities to manage such risks. So they are different in estimating the health risks they face because of their virtual relations and similar in their high ability to manage these risks.

**7-1 Family risks:** Table 7 shows the nature of family risks the adolescents have because of their virtual relations, which are of the least degree compared to other risks; R.S =45.25. According to the adolescents the risk at first place was Adolescent's abandoning his/ her family roles,  $\bar{x} w=1.57$ , followed by Adolescent's weak family relations,  $\bar{x} w=1.30$ . The adolescents showed very high ability to manage family risks; R.S=79.75. The most manageable family risk was Adolescent's failure of family value,  $\bar{x} w=2.47$ , in the second place came Adolescent's weak family relations,  $\bar{x} w= 2.40$ . R.S for the family risk aspect was less; 45.25 in case of exposure and more in case of management; 79.75. Meaning that despite the rare family risks for the adolescents; rarely=70.49%, they had high ability to manage such risks, always= 59.03%. This is could be because of the family value in eastern communities. Despite the changes families witnessed in terms of their forms, structure, roles and power distribution; they remain the most powerful social group in the Egyptian society. The significant difference at P.05, in favor of risks management confirms this conclusion (T cal. =6.625\*). There is a highly significant negative relation ( $R=-.977^{**}$ ) between exposure to family risks and the ability to manage them. The value refers to the rarity of adolescents' exposure to family risks and their ability to manage them. This is confirmed by the fact that the highest of family risks, that is; Adolescent's abandoning his/ her family roles comes in the first place in case of exposure and in the last place in case of management. The least of the risks; Adolescent's failure of family value comes in the third and last place in case of exposure and in the first place in case of management. The coefficient of variance is high in case of family risks exposure, 14.26% and low in case of family risks management 3.27%. This reflects that they are different in estimating their exposure extent more than in estimating their ability of managing them. So, they are different in estimating family risks they face because of their virtual relations and they are similar in their high ability to manage them.

**8-1 Extent of adolescents' virtual relations and their abilities to manage them:** The study results, table 8, show that the majority of the risks adolescents face because of their virtual relations, 93.75% (82.29% male & 11.46% female) are of the medium degree; 41-80 degrees, according to respondents' responses on the adolescents' virtual relations risks list; in case of exposure. The results also show that the majority of adolescents 71.88% (59.38% male & 12.50% female) have high ability, between 81-120 degrees, according to the respondents' responses on the adolescents' virtual relations risks list, in case of management. Therefore, both the first study hypothesis; "the adolescents' virtual relations lead to ethical, cultural, psychological, educational, health and family risks" and the second hypothesis; "there is a statistically significant correlation between risks exposure and ability to manage them" proved valid.

**2- ANOVA for groups of risk exposure, ability of risk management and their interactions:** The variability analysis's results, tables 9-10, show that there are differences (1154.903\*\*) between adolescents' exposure to different risks and extent of their management thereof in both groups, the management ability was more significant 2.28 than risk exposure 1.47. The results also show the presence of differences (2.155\*) between the seven types of risks, regardless the case of exposure or management. The differences came in the following order, according to the Least Significance Difference; psychological risks at the first place, followed by cultural/ educational/ health risks; in the second place, then the family risks in the third place, and finally came the ethical/ behavioral risks in the fourth place. A significant interaction between different risk types, according to exposure/ management extent ( $F_{Cal} = 2.259^*$ ). The risk exposure order based upon adolescents' estimations and according to Least significant difference, as follows; psychological risks, first, cultural/ educational risks, second, then health risks in the third place, family risks in the fourth place then the ethical risks and finally the behavioral risks. The order in terms of managing such risks according to Least significant difference was; behavioral risks; first, family risks; second, ethical/ cultural/ educational/ health risks came third and finally came the psychological risks. Therefore, we notice that

adolescents are more prone to psychological risks exposure because of their virtual relations and at the same time, they are less able to manage them compared to other types of risks. They are also less prone to behavioral risks and more able to manage them, vice versa; so as the risk degree decreases the adolescents' ability to manage those increases. So, both the third hypothesis; there are statistically significant differences between different types of risks, in case of exposure, and the fourth hypothesis; there are statistically significant differences between different types of risks, in case of management.

### **Conclusions:**

The general preview of adolescents' virtual relations, regardless the subtypes; shows that:

-the risks adolescents face the most because of their virtual relations were in the following order; mood swings, anxiety, Sleep disorder, Using billingsgate, Isolation, Self-estimation problems, Depression, violence, Turning virtual relations into real ones, school neglect/adopting violence urging ideas(repeated order), and this shows that psychological five risks dominate other types of risks.

-The more frequent risks with the higher probability of damage according to adolescents' ratings were the least manageable by them. Seven out of the ten risks were the least manageable by adolescents. So, the study results agree with the definition set for the risks; that is, the state experienced and realized by the adolescent due to exposure to harm because of his/ her virtual relation within a limited period with the possibility of incapability to manage such harm.

-The risk the adolescents face the least because of their virtual relation, were in the following order; Homosexuality, Alcoholism, Drug addiction, Attempted suicide, Violating others' privacy / Online sexual harassment(repeated order), Atheism, Sharing porn sites / Joining terrorist groups / Fraud (repeated order.) Thus, showing the dominance of eight behavioral risks over the other types of risks.

-The risks less frequent with the less probability for harm according to adolescents' ratings were; the most manageable by them. Six out of the ten risks were the most manageable by adolescents.

-The most manageable risks according to adolescents' ratings were; Atheism, Sexual abuse/ Adolescent's failure of family value (repeated

order), Alcoholism/ Homosexuality (repeated order), obesity, Prostitution, Drug addiction/Violence (repeated order), Fraud. Therefore, we notice that the behavioral risks were most manageable by the adolescents compared to other types of risk, and they were the risks the adolescents face the least according to the adolescents' ratings. Eight of these risks were among the most frequent ten risks among adolescents. Thus, the adolescents' ability to manage risks increases as the risks decrease.

-Difficulty in selecting university education type, Isolation, Mood swings, Anxiety, Self-estimation problems, Depression, Using billingsgate / Violating others' privacy (repeated order), Cyber bullying / Sleep disorder (repeated order) were the risks least manageable by the adolescents were the risks least manageable by the adolescents. So, we notice that the psychological risks are the least manageable by adolescents compared by other types of risks, as five of them were among the ten least manageable risks by adolescents. Seven of the least manageable risks were among the ten risks most experienced by the adolescents.

-The similar- content risks take place, despite their different classification; either in the same order: sexual relation (ethical), online sexual harassment (behavioral) in the twenty- seventh place. They can also come in successive order; drug addiction (behavioral) in the twenty- ninth place and alcoholism (behavioral) in the thirtieth place or in close order; violence (behavioral) in the eighth place and adopting violence urging ideas in the tenth place. This refers to the relative context in respondents' responses to the adolescents' virtual relations risks list.

-There is a highly significant correlation between risks exposure and the ability to manage them. This correlation is negative in case of ethical, psychological, behavioral, health and family risks. In other words, "as the degree of such risks increase the adolescents' ability to manage them decreases and vice versa". In case of cultural and educational risks, the correlation is positive, meaning "as the risks increase the adolescents' ability to manage them increase, vice versa."

-Adolescents are different in estimating the risk exposure extent more than in estimating the management thereof, meaning they are different

in estimating the risks they face because of their virtual relations and are similar in their high ability to manage them, except the educational risks.

-The majority of risks the adolescents face because of their virtual relations, 93.75% of medium degree 41-80, and the majority of adolescents, 71.88% have high ability to manage them, 81- 120 according to respondents' responses to list of adolescents' virtual relations risks (exposure/ management).

-There are general differences between risks types, regardless exposure or management.

-As the virtual relations are inevitable, their risks remain inevitable. Thus, entailing studying such virtual relations and assessing their risks continuously and working on altering the adolescents' thoughts about them especially those increasing the risks intensity and reduce adolescents' ability to manage them. Adolescents' thoughts of the virtual relations included: I can manage any risk no matter its intensity; these are not risks these are natural matters; these relations are the most important in my life and I cannot dispose of them; who said these are virtual relations these are actual relations as long as they exist in my life and provide me with happiness and satisfaction, the face- to- face relations cannot match virtual ones, and why would I care about actual relations imposing commitments that the virtual one would not impose. These thoughts have been detected through a survey using adolescents' virtual relations risks list.

-The study results, about the adolescents' susceptibility to psychological risks, compared to other types of risks, match to the results of the studies tackling the impact of internet addiction on psychological aspects including depression (Caplan 2000), psychological disorders (Arnoult 2007), psychological isolation (Nawla&Anand 2003), decline of self- esteem (Caplan 2000) and emotional skills decline (Engelberg& Sjoberv 2004).

-The previously presented results showed the ethical, cultural, psychological, educational, health and family seriousness of the adolescents' virtual relations, though in varying degrees. They also showed that the adolescents' ability to manage such relations varied, even though they believed they could manage such risks no matter

how intense they are. This is the result of some of the adolescence stage characteristics, as an adolescent would think that all his/ her life aspects are under control, which is dangerous. If presumed true, their abilities are instable in terms of both quality and quantity, as long as such risks are instable in terms of their type or intensity. So what the adolescent believes is under control is far from that.

### **Recommendations:**

The study recommends that the clinician social workers should pay attention to the virtual community and its virtual relations. The new clients of clinician practice resulting thereof require reconsideration of the clinician practice terminology as there is a new intervention environment; the social networks. This requires studying this environment's structure, characteristics, strengths and weaknesses, roles and problems. Therefore, set value, cognitive and skill bases that match the new environment and tackle new fields of clinician practice; that is "remote assessment and remote intervention". The clinician social work should go through comprehensive review phases on research, education and practice levels. The clinician social workers should have good knowledge of e-safety programs as one of the virtual community terms, as well as, the importance of performing qualitative studies providing detailed image of such risks to enable intervention and management. The present study recommends more future research in the field of risk assessment and interdisciplinary studies that include, assessment of social work risks, calculating the probabilities of events; both negative and positive, assessing the risk to the person; recipient of potential harm or the risk therefrom. The aim of risk management is to devise strategies that will help move the risk from the likely and harmful category to the unlikely or beneficial categories and to merge two types of risk assessment tools: clinical and actuarial.

### **Limitations:**

The author faced some difficulties upon performing the study including: the long period required for performing the study; six months on monthly basis by the internet addiction list to identify the internet-addicted adolescents, low number of female respondents compared to male ones. They also included relative shyness among

both male and female respondents during completing the virtual relations list, especially the items relating sexual aspects, which are hard to reveal in the Egyptian community. Such difficulties were overcome with the help of the staff of both youth centers; the study spatial file and the author acknowledges their corporation.

## References

- Arnaout, B. I. (2007). Internet Addiction and its relationship with character aspects and psychological disorders among adolescents, Faculty of Education journal, Zaqaziq University, V. 55, PP. 33-96.
- Barnard-Wills, D. (2012). E-safety education: Young people, surveillance and responsibility, *Criminology & Criminal Justice: An International Journal*. 12(3), 239-255.
- Barry, M. (2007). Effective Approaches to risk Assessment in social work: an international literature Review "final Report" (P. 6), Social work Research center, University of Stirling Scottish.
- Bennett, P. (2002). Behavioral and cognitive Behavioral Approaches to substance Misuse treatment, In: T. Petersen., & A, McBride. (Eds): working with substance misusers" A Guide to theory and practice" (P 93). NY: Routledge.
- Bishop, A. P. (2000). communities for the new century. *Journal of Adolescent & Adult literacy*, 43(5), 472-478.
- Black, S. R., Schmiede, S., Bull, S. (2013). Actual versus perceived peer sexual risk behavior in online youth social networks, *Translational Behavioral Medicine*. 3(3), 312-319.
- Blanco, M., G., Anglada, M., V., Pérez, J., F., Arbonès, M., M. (2002). Behavioral Problems Related with Internet Usage: an exploratory study, *Annals de psychologies*, 18(2).
- Buschman, J., Wilcox, D., Krapohl, D., Oelrich, M., Hackett, S. (2010). Cybersex offender risk assessment. An explorative study, *Journal of Sexual Aggression*, 16(2), 197-209.
- Caplan, S. (2002). Problematic Internet use and psychosocial well-being among MMO Players: Development of a theory – Based cognitive – Behavioral measurement Instrument, *computers in Human Behavior*, 18(5), 553-575.
- Christofides, E., Muise, A., Desmarais, S. (2012). Risky disclosures on Facebook: The effect of having a bad experience on online behavior, *Journal of Adolescent Research*, 27(6), 714-731.

doi: 10.1111/j.1460-2466.2001.tb02885.

Engelberg, E. (2004). Internet use, social skills, and Adjustment, *journal of cyber psychology & Behavior*, 7(1), 41-47.

Gonzalez, J.E. (2002). Present Day use of the internet for survey – Based Research, *journal of technology in Human services*,19(2),19-31.

Halawa, M, E, Abdel Atti, R, A. (2011). Social relations among young people between online chatting and Facebook, PP 5-6, Alexandria, Dar Al-Maarifa AlJamiia.

Hicks, M. (2010). 500 Million Stories  
<https://www.facebook.com/notes/facebook/500-million-stories/409753352130>

Holt, C. N. (2012).Engaging virtual communities in appreciative innovation, school of Business and management, Pepperdine University.

Kemp, S. (2015). Digital, Social & Mobile Worldwide in 2015.  
<http://wearesocial.net/tag/research>.

Kubey, R., W., Lavin, M., J., Barrows, J., R. (2001). Internet use and collegiate academic performance decrements: Early findings (*Journal of communication*, 51(2), 366-382.

Laine, M. O.J. (2006). Key Success factors of virtual communities, Helsinki University of technology (Master).

Larose, R., & Rifon, N. J. (2007). Promoting i-safety: Effects of privacy warnings and privacy seals on risk assessment and online privacy behavior, *Journal of Consumer Affairs*, 41(1), 127-149.

Leimeister, J. M., Sidiras, P., Krcmar, H. (2004). Success factors of virtual communities from the perspective of members and operators - An empirical, *Proceedings of the Hawaii'i International Conference on System Sciences*, Big Island, Hawaii.

Lwin, M. O., Li, B., Ang, R. P. (2012). Stop bugging me: An examination of adolescents' protection behavior against online harassment, *Journal of Adolescence*. 35(1), 31-41.

Mcleod, J. (2003). From Behaviorism to constructivism: the cognitive – Behavioral Approach to counseling, In, J, Mcleod (Ed). *An introduction to counseling (3<sup>rd</sup> Ed)*, (p. 135), Maidenhead: Open University press.



Middleton, D. (2009). Internet sex offenders, In, A. R. Beech, L. A. Craig, K. D. Browne. (Eds). *Assessment and treatment of sex offenders: A handbook*. (pp. 199-215). New York, NY, US: John Wiley & Sons Ltd.

Milner, J., & O'Byrne, P. (2002). *Assessment in social work* (2<sup>nd</sup> Ed), (P 169), NY: Palgrave MacMillan.

Ministry of Communication and Information Technology (2011). *ICI Indicators in Brief*, Cairo, Accessed FEB.

Nalwa, K., & Anand, A.P. (2003). Internet Addiction in students: a cause of concern, *Journal of cyber psychology & Behavior*, 6(6), 653-656.

Osborn, J., Elliott, I. A., Middleton, D., Beech, A. R. (2010). The use of actuarial risk assessment measures with UK internet child pornography offenders, *Journal of Aggression, Conflict and Peace Research*, 2(3), 16-24.

O'Sullivan, L. F. (2012). Open to the public: How adolescents blur the boundaries online between the private and public spheres of their lives, *Journal of Adolescent Health*. 50(5), 429-430

Pujazon-Zazik, M. A., Manasse, S. M., Orrell-Valente, J. K. (2012). Adolescents' self-presentation on a teen dating web site: A risk-content analysis, *Journal of Adolescent Health*. 50(5), 517-520.

Rice, E., Monro, W., Barman-Adhikari, A., Young, S. D. (2010). Internet use, social networking, and HIV/AIDS risk for homeless adolescents, *Journal of Adolescent Health*, 47(6), 610-613.

Seto, M. C. (2013 b). Introduction, In M. C. Seto. (Ed). *Internet sex offenders*. (pp. 3-9), Washington, DC, US: American Psychological Association.

Seto, M. C. (2013a). Risk assessment, In M. C. Seto. (Ed). *Internet sex offenders*. (pp. 193-223), Washington, DC, US: American Psychological Association.

Sharpe, C. A. (2010). Methods used by Internet predators to lure children into offline contact: How law enforcement and mental health professionals view grooming and assess risk, *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 70(12-B), p. 7864.

Sloyic, P. (1999). Trust, Emotion, sex, politics and science: surveying the Risk – Assessment Battle field, *Journal of risk Analysis*, 19(4), 689 – 701.

Smethurst, C. (2011). Working with risk, In A, Mantell, & T, Scraggy. (Eds): *safeguarding Adults in social work* (2<sup>nd</sup> Ed), (P 169), learning Matters.

Steel, R.G.D., & Torrie, J.H. (1960). *principles and procedures of statistics*, New York McGraw-Hill Book company.

Tavris, C., & Wade, C. (1997). *Psychology in perspective* (2nd Ed), (P. 266), NY: An Imprint of Addison Wesley Longman.

Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyber bullying victimization, *Computers in Human Behavior*, 26(3), 277–287. doi:10.1016/j.chb.2009.11.014

Tsai, C., & Lin, S. (2001). Analysis of Attitudes toward computer networks and internet addiction of Taiwanese adolescents, *Journal of cyber psychology & Behavior*, 4(3).

Valcke, M., De Wever, B., Van Keer, H., Schellens, T. (2011). (2011). Long-term study of safe internet use of young children, *Computers & Education*, 57(1), 1292-1305.

Vandebosch, H., & Van Cleemput, K. (2009). Cyber bullying among youngsters: Profiles of bullies and victims, *New Media & Society*, 11(8), 1349-1371.

Wellman, B., & Et al (1996). Computer Networks as social networks: collaborative work, telework, and virtual community, *Annual review of sociology*, 22, 213-238. doi: 10.1146/annurev.soc.22.1.21.

Young, K. (1996b). Internet Addiction: the emergence of a new clinical disorder, *Cyber Psychology and Behavior*, 1 (3), 237-244.

Young, K. (1999a). Internet addiction: Symptoms, evaluation and treatment. In L. VandeCreek & T. Jackson (Eds.), *Innovations in clinical practice: A source book*, 17 (pp. 19–31). Sarasota, Florida: Professional Resource Press.

Young, K. (2004c). Internet Addiction: A New Clinical Phenomenon and Its Consequences, *American Behavioral Scientist*, 48 (4), 402-415. doi: 10.1177/0002764204270278.