

Brief Considerations on Internet use in Adolescence

Short Communication

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In the recent scientific literature, the view of adolescence as a moment of transition to adulthood marked by a deep crisis of values and meanings has been integrated into a model that considers adolescence as an evolutionary phase with its own specificity, but in a process of continuity throughout the life cycle [1,2]. Adolescence is in particular a decisive period for the construction of adult identity and for the stabilization of personality, accompanied by important somatic, cognitive and affective modifications. Considering these processes, it has been posited that adolescence can constitute an evolutionary period of “risk”, in which vulnerabilities already present in childhood can re-emerge and be organized in stable configurations [3]. The new developmental tasks involve the reorganization of attachment bonds, shifting the focus from the family to the group of peers [4]. Steinberg [5] pointed out that adolescence is characterized by an increase in arousal linked to the biological and physiological transformations of puberty, and for this reason it constituted a period of increased vulnerability for the onset of affective and behavioral dysregulation; moreover, fluctuations in emotional and cognitive activation, can crystalize into stable affective dysfunctions. More recently, in the field of neuroscience, empirical research has highlighted how brain development during adolescence presents changes in the prefrontal cortex that lead to an increase in the effectiveness of information processing and are also involved in metacognition, self-assessment and self-regulation processes [6]. In addition to these empirical evidences that highlight the acquisition of new brain functions, several researches pointed out that adolescents can frequently carry out potentially maladaptive behaviors (such as dangerous driving, drug use and abuse, promiscuous sexual activities). Although cognitively recognizing the maladaptive nature of these behaviors, adolescents tend to indulge in such actions due to peers’ pressure or individual psychopathology [7]. Recently, it has been posited that Internet maladaptive use can be included among these potentially dangerous and developmentally problematic behaviors [8].

The birth and diffusion of the “new media”, has caused profound psychological, social and anthropological changes in our society: the Web has quickly become a powerful means of expression that allows rapid communication and socialization among people all over the world. Everyday life, together with the affective-relational modalities and even the relationship with reality, have drastically changed; the overcoming of space-time constraints has allowed to circumvent many obstacles and barriers, exponentially increasing individuals’ possibilities and opportunities, but at the same time amplifying possible risks and dangers.

While on the one hand some factors have been identified that can predispose to the development of an Internet addiction in adolescence such as a difficulty in emotional regulation, technology itself also has specific characteristics that can facilitate the development of risky and pathological behaviors, such as for example: the high affordability of the medium; the instantaneous feeling of gratification of a perceived need (which may consist in the need for emotional contact with others, the need to find information, etc.); the ability to consult, interact and modify potentially unlimited virtual environments; the possibility of using the Web as an a-temporal and anonymous place; the rapid establishment and maintenance of emotional and/or sexual intimacy (sometimes consistent with the construction of affective bonds in real environments, sometimes not); the sense of perceived (although illusory) personal control. Many studies have

shown that the maladaptive use of the Web, which can activate the same neurobiological circuits involved in the perception of pleasant stimuli, can lead to the strengthening of some neural connections and the atrophy of others, among which those directly involved in the use of critical thinking and reasoning, as well as those connected to the emotional functioning of the brain, for example in the limbic system. Although the phenomenon is universal and transversal in nature, it is obviously possible to trace the most at risk population groups: as recent studies and research have shown, the probability of developing an addiction as well as being exposed to the dangers of the Web (e.g. cyberbullism, sexting, solicitation, pedo-pornography) is much higher for those groups ranging from childhood to adolescence.

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