

## **Correlates of Value-orientation among Adolescents: Role of Internet Addiction and Demographic Variables**

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The present study was planned to explore the role of the internet in value-orientation among adolescents along the role of different demographic variables that is number of Facebook friends, peer interaction, and religiosity. For the current study, cross-sectional and survey method was used for data collection. Convenience sampling was used for sample selection. Portrait Value Questionnaire and Internet Addiction Scale were used for data collection from the sample of 500 adolescents (302 girls & 198 boys) with age range 16-22 years. Findings showed that those who were addicted to the internet scored higher on hedonism value-orientation as compared to those adolescents who were not addicted to the internet. Moreover, peer interaction also positively correlated with universalism and hedonism value-orientation among adolescents. Further, religiosity negatively correlated with internet addiction and the number of Facebook friends positively related to internet addiction among adolescents. Findings were discussed and implications were suggested.

*Keyword.* Value-orientation, internet addiction, religiosity, peer interaction, Facebook.

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Human beings follow some guiding principles to lead life in desired direction. These guiding principles are called values of life like security, benevolence, achievement, power, etc. that are held with varying degree of importance by people. A specific type of value may be essential to an individual, but insignificant for another person. An individual's attitudes and behavior towards his/her self and environment reflect his preferred values, hence, can be measured (Kuntz, Davidov, Schwartz, & Schmidt, 2015).

Value-orientation helps an individual in selection and evaluation of their actions; deciding about what is right or wrong; what is worth doing or avoiding by possible consequences; making policies; helping in decision making regarding everyday problems. Schwartz views "value-orientation" as the combination of different attitudes into an abstract set of preferences (Schwartz et al., 2012; Ahmed, Ammar Ahmed, Akhtar, & Salim, 2017).

Schwartz (2009) described values as accepted orientations that motivate and control individuals in a variety of life events and give explanations concerning different opinions, attitudes, and actions of an individual. Based on the compatibilities and conflicts between their respective motivational goals, Schwartz (1992; Schwartz et al., 2012) proposed four value-orientation dimensions that are Conservation (Conformity; restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms, Tradition; respect, commitment, and acceptance of the customs and ideas that one's culture or religion provides, and Security; safety, harmony, and stability of society, of relationships, and of self), Openness to change (Self-direction; independent thought and actions, Stimulation; excitement, novelty, and challenge in life) Self-enhancement (Achievement; concerns meeting internal standards of excellence, Power; individual needs for dominance and control,

and Hedonism; a desire for affectively pleasant arousal), and Self-transcendence (Benevolence; preserving and enhancing the welfare of those with whom one is in frequent personal contact, and Universalism; understanding, appreciation, tolerance, and protection for the welfare of all people and for nature).

In the past years, people have changed little genetically, but a drastic change has occurred because of rapid technological and cultural revolution in their social roles, beliefs, values, and styles of behavior. According to Bardi and Goodwin (2011), environmental factors including different life experiences and exposure to different life situations have a major impact on the development of values. A Gallup study conducted in Pakistan stated that 62% of people reported that cultural values, which help out an individual to live a good life are fading away from the society (Gallup Pakistan, 2010). In Pakistan, being a collectivist society, the family has a strong influence on adolescents' value-orientation, however; this can also be influenced by behaviors and factors like internet addiction, peer interaction, and religiosity. The Overall prevalence of internet addiction is about 0.3% to 38% around the world (Chakraborty, Basu, & Kumar, 2010; Cisheng et al., 2017; Jami & Kamal, 2017; Kalsoom, Masood, & Jami, 2017) and Pakistan is fifth heavy user of internet among Asian countries.

The major focus of the present study is to investigate value-orientation among adolescents in the context of gradually changing Pakistani culture for two reasons. Firstly, values are considered as the most affecting and sensitive element of culture in shaping behaviors. Secondly, numerous psychological, biological, and social changes take place during the adolescence period. They have to learn to adapt to their changing physical and social needs as well as with their newly placed responsibilities and talents. The growth process of modern adolescents is deeply affected by the 'online'

environment (Purcell, 2012; Khan, Amanat, Aqeel, Sulehri, Amanat, Sana, & Amin, 2017).

Mass media is one of the most stimulating factors in our society in post-modern era (Inglehart, 2008). It is the one of the strongest pillar of society in shaping an individual's behavior, views, attitudes, and changing values (Sabir, Sohail, & Khan, 2011). Internet technologies play an important role in globalization process and are considered as key factors and drivers of change. Internet which is considered an important source of communication and information has changed the individual, cultural, and social life (Alcantara-Pilar, Del Barrio-García, & Porcu, 2013; Bibi, Sobia, Mustanir & Sana 2017). The internet has converted the society in network society which is a mixture of economic, cultural, social, and technological transformations (Zhang, Pablos, & Xu, 2014). Therefore, the current study focus is to explore the factors (i.e., internet addiction) which may lead to effect and change our social, cultural, and traditional values.

Past literature related to entertainment media use and values showed that media has great influence on value-orientation. In recent years, the entertainment media particularly internet has been centered as the major reason for the conflicts over values (Bagchi, Udo, Kirs, & Choden, 2015). Past literature supports the notion that internet use may fulfill different developmental needs of adolescents. Adolescents use new forms of technology to make close and meaningful relationships (Valkenburg & Peter, 2009), intimacy (Smahel, Brown, & Blinka, 2012), and find information about developmentally sensitive issues. They can find academic support (Chen & Hu, 2012), strengthen their online communication skills and knowledge (Koutamanis, Vossen, Peter, & Valkenburg, 2013; Valkenburg & Peter, 2011; Peter, Abbas, Aqeel, Akhtar, & Farooq, 2017; Hussain, Rohail, & Ghazal, 2017; Rehna & Hanif, 201;

Aftab & Malik, 2017), gain positive feelings of mastery and competence (Schmitt, Dayanim, & Matthias, 2008), learn from their peers about communication norms and cultures, increase the feeling of connection, and the sense of community (Choi, 2016). Hence, this acts as major deriving force to shape value-orientation.

As adolescents enter in their teenage years, they frequently interact with their peers as compared to their parents. They give more importance to peers as a source of great social and emotional support and seek their guidance and advice. Peers play an active role as family substitute outside the home that shapes personality and individuality. Past studies also suggest that close peer interaction results in positive psychological outcomes and increased happiness (Durlak, Weissberg, & Pachan, 2010) that may contribute to the development of important values which produce happiness and self-confidence (like universalism, hedonism) which may result in positive attitudes and behaviors among adolescents. Interacting with variety of Facebook friends, and their number is the indicator of intensity of using social media or internet.

Past literature also suggests that religiosity plays a pivotal role in guiding the moral and social development of youth and preventing people from involvement in problematic activities (e.g., Stolz, Olsen, Henke, & Barber, 2013). Religiosity is considered as one of the most important spiritual parts in the development of adolescents (Imam, Nurullah, Makol-Abdul, Saodah & Hazizan, 2009). Religiosity is defined as the extent to which an individual is committed to his/her religious teachings, beliefs, moral norms, as reflected by his/her behavior (Saroglou, 2011). Religiosity and behavioral development is an important issue for adolescents as they experience new worldviews. Religion provides a set of beliefs

to give meaning and value in life and to develop an individual's behavior. On the basis of literature, it is assumed that:

1. Those participants who are addicted to Internet have more hedonism value-orientation than those participants who are not addicted to internet.
2. There is a positive relationship of peer interaction with universalism and hedonism value-orientation among adolescents.
3. Religiosity negatively relates to internet addiction among adolescents.
4. There is a positive relationship between number of Facebook friends and internet addiction among adolescents.

## **Method**

The present study has a correlational and cross-sectional questionnaire based design. It is carried out to find the role of internet addiction, and different demographic variables that are religiosity, peer interaction, and number of Facebook friends in value-orientation among adolescents.

### **Sample**

It consisted of 500 adolescents with age 16-22 years ( $M = 19.63$ ;  $SD = 2.44$ ). Inclusion criteria for sample selection were only those individuals who must be using internet. Both boys ( $n = 198$ ) and girls ( $n = 302$ ) were included in the sample. Data were collected from Rawalpindi/ Islamabad. Convenient sampling was utilized as a technique for sample selection. Among sample, 374(74.8%) had Facebook accounts too, while 126(25.2%) did not have Facebook account.

## Measures

**Internet Addiction Test (IAT).** It was originally developed by Young (1998), and for present study was translated by the researcher for which permission was taken from the author. It has 20 items on which respondents were asked to rate items on 6-point Likert scale, covering the degree to which their internet use affects their daily routine, social life, productivity, sleeping pattern, and feelings; where 0 = *Does not apply* , 1 = *Rarely*, 2 = *Occasionally*, 3 = *Frequently*, 4 = *Often* , 5 = *Always* . It has four subscales: Difficulty to Control ( 5 items, 1, 5, 6, 16, 17), Avoidance ( 5 items, 2, 7, 8, 9, 18), Social Isolation (4 items, 3, 4, 12, 19), and Deprivation (6 items, 10,11,13,14,15, 20). The minimum score is 20 and maximum is 120; the higher the score, the greater the problems internet use causes. There is no reverse coding for the any item of this scale. Young (1998) suggests that a score of 20-39 points is an average on-line user who has complete control over his/her internet usage; a score of 40-69 signifies frequent problems due to internet usage; and a score of 70-100 means that the internet is causing significant problems. Scale was also used in Pakistan and had an acceptable reliability of .86 (Khalid, 2015).

**Portrait Value Questionnaire (PVQ-40).** The original scale was developed by Schwartz (1987). For the present study, Urdu translated version by (Akram, 2012) was used. It has 40 item having four broader domains with ten subscales that is: Self-enhancement including Achievement (4 items, 4, 13, 24, 32), Power (3 items, 2, 17, 39), Hedonism (3 items, 10, 26, 37), Self-transcendence; Benevolence (4 items, 12, 18, 27, 33), Universalism (6 items, 3, 8, 19, 23, 29, 40) with possible score ranging from 6 to 36; Conservation including Conformity (4 items, 7, 16, 28, 36), Tradition (4 items, 9, 20, 25, 38), Security (5 items, 5, 14, 21, 31, 35) with possible score ranging from 5 to 30;

Openness to Change including Self-direction (1, 11, 22, 34), with possible score ranging from 4 to 24; Stimulation (3 item, 6, 15, 30) with possible score ranging from 3 to 18. It was 6-point rating scale with six response categories ranging from 1 = *not at all like me* to 6 = *very much like me*. High score on each subscale indicated high priority for that particular value. Scale was also used in Pakistan and had an acceptable reliabilities of .54, .46, .40, .67, .57, .56, .34, .50, .42, .51, .74, .75, .68, and .73 for Conformity subscale, Tradition subscale, Benevolence subscale, Universalism subscale, Self-direction subscale, Stimulation subscale, Hedonism subscale, Achievement subscale, Power subscale, Security subscale, Conservation value-orientation domain, Self-enhancement value-orientation domain, Openness to change value-orientation domain, Self-transcendence value-orientation domain (Hayee, 2012).

**Demographic sheet.** For the present study, a demographic sheet was designed to get information about demographic variables that is religiosity, peer interaction, Facebook account status, and the number of Facebook friends. For measuring religiosity 5 points Likert scale was developed by following the previous literature that includes performing religious activities (i.e., number of prayers performed by an individual in a day?) and the extent to which an individual follows religious rituals. In order to measure peer interaction questions were asked from adolescents about their interaction level with their friends through mobile, e-mail, and Facebook etc. For example, how often do you interact with your friends through mobile, email, and Facebook? Facebook account status, and the number of Facebook friends were measured through asking questions like, do you have a Facebook account? How many friends do you have on Facebook? This demographic sheet was very detailed and designed on the basis of literature which

seems relevant to the present study to explore their role in study variables.

## **Procedure**

The adolescents were approached at their colleges and universities and informed about the research purpose, and their written consent was taken regarding participation in the study. After the informed consent was taken, participants were given a brief introduction about the objectives of the study and its significance. The booklet comprising of the demographic sheet along with questionnaires were handed over to the participants. Present study is a part of MPhil level research of the first author. The verbal instructions were also provided to the respondents to read each item carefully and mark the option according to what they feel or think; they were told that there were no rights or wrong answers. It was also requested not to leave any item unmarked. Participants were assured about the confidentiality of the information provided by them and maintaining anonymity while reporting findings of the study.

## **Results**

Data were analyzed through SPSS 21. To study the relationship between certain demographic variables including the number of friends on Facebook, religiosity, and peer interaction with value-orientation and internet addiction, Pearson Product Moment correlation was computed. To compare participants with internet addiction and no addiction on study variables, independent sample t-test was computed. Independent sample t-test was also used to explore mean differences on value-orientation and internet addiction regarding having a Facebook account ( $n = 374$ ) and having no Facebook account ( $n = 126$ ).

## Relationship between Variables

Table 1 shows the relationship between certain demographic variables including the number of friends on Facebook, peer interaction, and religiosity with study variables, Pearson Product Moment correlation is computed.

Table 1

*Correlations of Demographic Variables with Internet Addiction and Value-orientation (N = 500)*

Demographics	IAT	CON	TRD	BEN	UNV	SLD	STI	HED	ACH	POW	SEC
Internet addiction	.	.03	.01	.00	.05	.00	-.07	<b>.09*</b>	-.02	<b>-.01*</b>	<b>.10*</b>
Facebook friends	<b>.09*</b>	.01	.04	-.03	<b>.16**</b>	<b>-.09*</b>	-.01	.04	-.04	-.05	.04
Peer interaction	.04	.06	.02	.01	<b>.12**</b>	-.00	<b>-.18**</b>	<b>.08*</b>	-.02	-.02	.06
Religiosity 1	-.05	-.00	<b>-.14**</b>	-.00	-.06	<b>.15**</b>	<b>.11**</b>	-.07	.01	.02	<b>-.10*</b>
Religiosity 2	<b>.11**</b>	.04	<b>-.13**</b>	-.08	-.04	.02	.06	-.01	.06	.07	<b>-.09*</b>

*Note.* IAT = Internet Addiction Test; CON = Conformity; TRD = Tradition; BEN = Benevolence; UNV = Universalism; SLD = Self-direction; STI = Stimulation; HED = Hedonism; ACH = Achievement; POW = Power; SEC = Security. Religiosity1 = the extent to which a person follows religious rituals; Religiosity2 = No of prayers perform by an individual.

\* $p < .05$ . \*\* $p < .01$ .

Results of Table 1 shows that Facebook friend have significant positive relation with internet addiction and universalism, while, significant negative relation is found with self-direction. Peer interaction has a significant negative correlation with stimulation and significant positive correlation with hedonism and universalism. Religiosity has a significant positive correlation with self-direction and stimulation. Religiosity has a significant negative correlation with internet addiction.

## Differences along Internet Addiction Status

To compare participants with internet addiction and non addiction, independent sample *t*-test was computed to explore the mean differences on value-orientation and its subscales. For this purpose, two groups of internet addicted and non addicted were created by following the 27% normal distribution criteria. Data were divided into three groups for equal proportions by taking the upper and lower 27% of the distribution of scores (Kelly, 1939).

Table 2

*Mean standard Deviation and t-test for Value-Orientation among Students who are Internet Addicted or Non Addicted (N = 500)*

variable	Addicted	Non addicted	95 % CI				Cohen'sd
	(n = 135)	(n = 135)	t(268)	p	LL	UL	
	<i>M(SD)</i>	<i>M(SD)</i>					
<b>Values</b>							
CON	-.26 (.57)	-.29 (.54)	-.47	.63	-.16	.10	.05
TRD	.01 (.63)	-.00 (.50)	-.14	.88	-.14	.12	.02
BEN	-.18 (.52)	-.88 (.53)	-.09	.92	-.13	.12	.35
UNV	-.14(.54)	-1.5 (.42)	-1.57	.11	-.20	.02	.02
SLD	-.04 (.61)	-.02 (.63)	.33	.74	-.12	.17	-.03a
STI	.41 (.77)	.60 (.85)	1.90	.06	-.00	.38	-.23
HED	-.17 (.72)	-.38 (.59)	-2.57	<b>.01</b>	-.36	-.04	.31
ACH	.07 (.56)	.10 (.64)	.33	.73	-.12	.17	-.04
POW	.33(.92)	.57 (.93)	2.12	<b>.03</b>	.01	.46	-.25
SEC	-.03 (.55)	-.16 (.53)	-1.95	<b>.05</b>	-.26	.00	.24

*Note.* Values = Value-orientation; CON = Conformity; TRD = Tradition; BEN = Benevolence; UNV = Universalism; SLD = Self-direction; STI = Stimulation; HED = Hedonism; ACH = Achievement; POW = Power; SEC = Security, CI; Confidence Interval, LL; Lower Limit, UL; Upper Limit

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Results in Table 2 reveal significant mean differences and shows that mean score of the addicted group is significantly high on hedonism, power, and security. It means that those who prioritize hedonism, power, and security values use internet excessively for seeking power, security, and pleasure.

**Differences along Having Facebook Account**

To compare mean differences along internet addiction and value-orientation, participants having a Facebook account ( $n = 374$ ) and having no Facebook account ( $n = 126$ ), independent sample  $t$ -test was computed to

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**Table 3**

*Mean, Standard Deviation, and t-test for Internet Addiction and Value-Orientation among Students having Facebook Account and No Account (N = 500)*

Variable	Facebook account	No account	t(498)	p	95 % CI		Cohen's d
	(n = 374)	(n = 126)			LL	UL	
	M(SD)	M(SD)					
<b>IAT</b>	2.14 (.83)	2.02 (.59)	1.67	<b>.00</b>	-.02	.24	.16
<b>Values</b>							
CON	-.24 (.54)	-.36 (.56)	2.12	.80	.00	.22	.09
TRD	.04 (.60)	-.07 (.47)	2.31	<b>.03</b>	.01	.22	.04
BEN	-.15 (.57)	-.19 (.52)	.79	.99	-.06	.15	.04
UNV	-.17 (.48)	-.22 (.48)	1.00	.48	-.04	.14	.05
SLD	-.04 (.58)	.27 (.68)	-4.61	<b>.03</b>	-.44	-.17	-.15
STI	.43 (.80)	.76 (.92)	-3.85	.15	-.50	-.16	-.02
HED	-.26 (.64)	-.48 (.52)	3.40	.10	.09	.34	.04
ACH	.09 (.64)	-.00 (.64)	1.45	.84	-.03	.22	-.00
POW	.40 (.90)	.56 (.88)	-1.79	.92	-.34	.01	.01
SEC	-.08 (.55)	-.24 (.48)	2.90	.16	.05	.26	.05

*Note.* IAT = Internet Addiction Test, Values; Value-orientation, CON = Conformity, TRD = Tradition; BEN = Benevolence; UNV = Universalism; SLD = Self-direction; STI = Stimulation; HED = Hedonism; ACH = Achievement; POW = Power; SEC = Security, CI, Confidence Interval, LL; Lower Limit, UL; Upper Limit

Table 3 shows that on internet addiction mean score of those participants is significantly high who have a Facebook account as compared to participants who do not have a Facebook account. It shows that participants having Facebook account use internet more frequently as compared to those who do not have a

Facebook account. Findings shows that mean score of the participants on tradition value-orientation is significantly high who have a Facebook account as compared to those who do not have a Facebook account. Results shows that on self-direction mean score of the participants who do not have a Facebook account is significantly high as compared to those participants who have a Facebook account. The results show that effect size is very small for all these variables.

## **Discussion**

The present study was aimed at investigating the role of internet addiction and different demographic variables such as the number of Facebook friends, religiosity, and peer interaction in value orientation among adolescents. The study employed a correlational research design. In the present study, the independent sample *t*-test was employed, and results supported Hypothesis 1 that participants having internet addiction had more hedonism value-orientation than non addicts. The possible reason for this may be that adolescents use the internet to gain pleasure from watching movies, entertainment programs, and spend good time to seek pleasure. People who give more importance to hedonism value-orientation may have inborn need to gain pleasure and arousal (Schwartz et al., 2012).

A possible reason for adolescent's priority for hedonism value-orientation might be that adolescence is an age when more importance is given to individual values related to personal outcomes like hedonism (Tulviste, & Tamm, 2014). Another reason for this may be that adolescents who are addicted to internet find internet captivating, pleasurable and easy for communication that provides an environment for relaxation,

unwinding, and thrill-seeking (Prioste, Narciso, & Goncalves, 2012; Schwartz et al., 2012).

The possible reason for this finding could be that there is a difference in internet addiction and value-orientation in developed and developing countries. For example, people belonging to developed countries may use internet to a certain extent, and is a routine affair for them to use the internet. For developed nations internet addiction has a lesser impact on hedonism value-orientation. For developed nations, hedonism can be achieved through a different channel, such as face to face interaction, or by using mobile, or through physical contact to have a good time (Bagchi et al., 2015). On the other hand, for developing countries like Pakistan, use of the internet for gaining pleasure and accomplishing hedonism value is very common. For people belonging to developing countries, internet is a source to achieve pleasure and have a good time in the life where they are otherwise trying hard to meet ends. Spending on expensive leisure activities is quite difficult for people, hence, internet is a comparatively cheap way of seeking enjoyment and pleasure in life. Besides, mobile packages and internet access available at cheaper rates in Pakistan have made youth to derive enjoyment from these sources.

Those who use internet frequently than those who are less addicted have more internet related self-efficacy that make them feel empowered to use media to get information and to use for their benefit. That may be the reason that they have more power value-orientation as per the findings of the current study. Similarly, those who are addicted to internet use have more security value orientation than those who are less addicted. Although, both groups have weaker security orientation, nevertheless, addicts have more security value. Again, this may be

related to their high self-efficacy to use internet, as they can well appreciate to maintain cyber-security to reduce vulnerability in cyber-space. Those who are addicted less may have less efficacy in using internet, so is the low concept of need for security (Bagchi et al., 2015).

Findings of present study support Hypothesis 2 that is there is a positive relationship of peer interaction with universalism and hedonism value-orientation among adolescents. One possible reason for giving priority to universalism value-orientation that includes benevolence value which is related to give importance to building positive cooperative social relation with others. Universalism which is also related to the welfare of others and acceptance for individual differences that contributes to positive social relations. Another possible explanation for this finding might be that collectivistic nature of Pakistani culture. Pakistani society is quite traditional in beliefs and customs and aspiring for norms for collective good is very important. In our society, people are helpful by nature, and they prefer to be humble with other people those who are close to them. This also what the most practiced religion that is Islam teaches in which rights of people are given much importance. That is why people are careful about others and prefer to work for the welfare of others which ultimately leads to universalism value-orientation (Blais, Craig, Pepler, & Connolly, 2008). Charity is another concept that strongly prevails in Pakistani society. Pakistan is one of the leading country where even poor prefer to offer charity to those who are even poorer. With such values in the society, supportive evidences have come from the findings of the study that is those who have more frequent interaction with peer have universalism value-orientation.

High level of peer interaction also relates with hedonism value-orientation among participants. Peer interaction enhances gain in pleasure. As the motivation process has great influence on learning process, thus people pursue only those activities which may have some positive outcome, reward, and pleasure. Past studies also suggest that close peer interaction results in positive behavioral outcomes like universalism and increased happiness (Durlak, et al., 2010).

Results of the current study also suggest that religiosity is negatively related to internet addiction; hence, Hypothesis 3 is supported. It showed that with increase in participation in religious activities addiction to internet use reduces. A possible reason according to secularization theory may be that religiosity restrains the internet use, thus reducing their likelihood of developing internet addiction. This may be because content found on the internet is secular in nature and non reflective of religious values. So an individual with greater religiosity may not use internet excessively (Charlton & Danforth, 2010).

Internet is proving a source of erotic stimulation, which is considered as an important factor for addiction. Religion emphasizes sexual restraint, which may prevent from access use of internet (Kluver & Cheong, 2007). Another reason that may explain the relationship is that many people extensively use internet addiction to gain psychological escape from daily life problems that may be less of a coping strategy among people with greater religiosity for the following reasons. Firstly, may be because religious lifestyle itself acts as a coping to lower exposure to stressors. Secondly, religious people experience greater social support from their religious community members. Thus, religiosity may protect people from becoming lonely and developing internet addiction (Charlton & Danforth, 2010).

Results of the present study support the Hypothesis 4 that there is a positive relationship between number of the Facebook friends and internet addiction among adolescents. It shows that adolescents who have more Facebook friends are more addicted to using the internet. A possible reason for this may be that adolescents use internet more frequently to make new relations, to communicate with close friends, to make plans with friends, to interact after school hours, exchange information regarding homework, and get social support (Lenhart, Purcell, Smith, & Zickuhr, 2010). Therefore, social media becomes a tool to build social relation for adolescents and to communicate their feelings and emotions with their friends. One possible explanation for this might be that adolescence is an age when they are more interested in making friends and role of peer is very important in their life (Valkenburg & Peter, 2009).

Adolescence is a phase which is based on relationship formation with others for social needs and social compensation that require intimacy and companionship, therefore, at this stage individual's social circle expands from family to peer group. One reason for making friends among adolescents could be that adolescence is a period of a lot of biological, psychological, and social changes. They have to learn new skills to adjust according to their changing bodies and social needs to perform their duties and social roles. Evidence from past literature also showed that adolescents mainly use internet for social relations purposes (Gunuc & Dogan, 2013; Tzavela et al., 2015).

Findings further showed that adolescents who have a Facebook account scored higher on internet addiction as compared to those who did not have a Facebook account. Past literature also showed that adolescents use Facebook account more frequently to interact with their friends and to gain social

and emotional support. These motivations to use Facebook excessively by adolescents lead to internet addiction (Nadkarni & Hofmann, 2012; Yang & Brown, 2013). Hence, Facebook account and having large number of Facebook friends is indicator of internet addiction among youth.

A possible explanation for this may be that adolescents use the internet to connect with friends, get social support, make new friends, and establish better online communication by reinforcing existing relationships (Koutamanis, Vossen, Peter, & Valkenburg, 2013; Lenhart, Purcell, Smith, & Zickuhr, 2010; Valkenburg & Peter, 2011). Moreover, social media provides an opportunity to adolescents to fulfill their self-affirmation need (Hellstrom, Nilsson, Leppert, & Aslund, 2012). A social network (i.e., Facebook) helps an individual in developing individual and group identities by getting acceptance from friends on Facebook (Jackson, von Eye, Fitzgerald, Zhao, & Witt, 2010). Facebook allows adolescents a frequent online interaction with a large number of friends on the web where they may not find it in the offline world (Frison & Eggermont, 2015; Livingstone, 2008).

### **Limitations and suggestions**

1. It was a cross-sectional study. In future longitudinal studies are required to get in-depth understanding of value-orientation patterns and transmission among adolescents over the time.
2. The study was based on self-reports from the adolescents. It would be interesting for future research to adopt multiple methods and consider not only self-reports, but also other kinds of methodologies such as observational measures and adopting a more qualitative approach to explore impact of

demographic variables and internet addiction on value-orientation of adolescents.

3. Data were collected by using questionnaires; social desirability might influence adolescent's response regarding internet behavior, religiosity, and value-orientation. Social desirability Scale should be used to check whether the responses of participants were desirable or not.
4. The sample was relatively small and nonrepresentative of the whole population. It is suggested that for future research, the sample size should be increased and if possible random sampling technique should be used.

### **Conclusion and Implications**

The present study provides a link between religiosity, internet addiction, and value-orientation, while also providing support for role of peer interaction. Findings of the present study showed that those who were addicted to internet scored higher on hedonism, power, and security value-orientation. Moreover, peer interaction and number of Facebook friends were also positively correlated with universalism value-orientation and hedonism value-orientation. It showed that higher peer interaction leads to giving priority to other focused values like universalism that includes helping nature for others and pleasure seeking. Hence, it appears that peer interaction provides socio-emotional competence, such as prosocial and helping behavior (Universalism) for others that may influence an approach in life based on increasing happiness or hedonism through using different tools like internet and social media. Facebook account and number of Facebook friends positively relates to internet addiction among adolescents and hedonistic value-orientation. Religiosity negatively relates to internet addiction and promotes self-direction. It showed that

religiosity acts as a protective factor against developing the internet addiction.

The present study has provided an empirical basis for the common notion that the internet addiction, religiosity, and peer interaction play a vital role in adolescent's value-orientation. Moreover, this research has provided a fruitful basis for future research in this area as it has highlighted the impact of religiosity as a protective factor against the internet addiction and positive attitudes and values among adolescents. Findings of the current study are also relevant to parents, teachers, and others who are concerned about the healthy development of adolescents. Overuse of the internet for social support and pleasure-seeking purpose may result in problematic internet use among adolescents. So to avoid that, parents and educators should provide all possible opportunities to adolescents that social media and internet can open up to adolescents. Parents and teachers have to be involved in teaching adolescents about careful internet use, to avoid any harm to their future because adolescents use the internet to satisfy their developmental needs.

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