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INCIVILITY IN DIGITAL ERA: A STUDY ON CYBERBULLYING

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Abstract

Cyberbullying, the intense inappropriate and hostile behaviors online, represents the dark side of digital era we are living in. The increased frequency of this cyberincivility among both youth and adults and the negative psychological and organizational impacts it has on victims have made it interesting topic for researchers. The aim of this study was to investigate the positive attitudes toward cyberbullying and its facilitators, anonymity, strength differential and being a victim of cyberincivility. The research was conducted on 481 higher education students (53.4% females and 46.2% males; 56.8% working and 43.2% without any work experience). Results revealed that when one perceives that there is a difference in strength (either physical or in terms of status), he/she might be more inclined to develop attitudes for kidding or taking revenge for the past behaviors he had encountered in the past. In addition, being humiliated is found to increase the positive attitude toward kidding and being ignored in cyber environment is found to increase the positive attitude toward tit for tat. With respect to gender, males had higher positive attitude toward kidding than females. Males with no work experience are found to perceive anonymity more than males with experience and females with work experience perceived anonymity more than females with no work experience.

Keywords: Anonymity, cyberbullying, cyberincivility, strength differential, victimization.

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1. Introduction

Intense use of the Internet has caused some negative consequences in addition to their positive benefits. In today's digital era, cyberbullying is one of the negative consequences we are facing with an increasing frequency. Cyberbullying is different from traditional bullying in anonymity, publicness, and access. Nonetheless, it carries the negative impacts as low job satisfaction high burnout, absenteeism, and turnover intentions. What's more, cyberbullying is very common among youth. New generations who are exposed to cyberworld at earlier ages and with high intensity, face the dark side of it when they are young as well. Therefore, it is important to study cyberbullying prior to, as well as, during the work environment. In line with this, in this study higher education students' attitude toward cyberbullying is analyzed comparing students with or without work experience.

2. Literature Review and Theoretical Framework

2.1. Cyberbullying

Cyberbullying is a type of incivility that is realized in the electronic environment and the instigator posts rumors, information that is misleading, humiliating and defaming materials about the victim or spreads gossips online (Clark, Werth, & Ahten, 2012). Cyberbullying is also defined as "inappropriate, unwanted social exchange behaviors initiated by a perpetrator via online or wireless communication technology and devices" (Piotrowski, 2012), Tokunaga has integrated different definitions on cyberbullying and defined cyberbullying as any behavior by an individual or group through electronic communication or digital media where repeated hostile and aggressive messages that aim to create harm or discomfort on the others are sent (Tokunaga, 2010).

2.2. Cyberbullying vs traditional bullying

Traditional bullying and cyberbullying have many common points. They are recurring and unpleasant, it can be exceed the limits; there might be differences in power; and might cause the other party to feel powerless (Lawrence, 2015). On the other hand, unlike traditional bullying, in the cyberbullying since one uses electronic devices and the interaction is not face to face it becomes easier to access the target, there is no supervision on electronic media, the instigator might keep himself/herself anonymous and this might lead to greater social dissemination (Cioppa, Neil, & Craig, 2015; Patchin & Hinduja, 2006; Tokunaga, 2010). Cyberbullying might be more harmful than the other types of bullying because it is anonymous, not private and it has easier accessibility (Lawrence, 2015).

Both perpetrators and targets are influenced by the potential anonymity of online interactions. Since they are distant from their targets and may not see and thus neglect the discomfort of the victims, cyber bullies may feel safer and carry on more freely (Barlett, 2015; Mc Kenna, 2007; Sarkar, 2015). Targets may be afraid, feel helpless and experience invasion of privacy and may think they are being pursued and haunted since they do not know who is bullying them (Ford, 2013; D'cruz & Noronha, 2013). Therefore, they do not have the chance for making up (West, Foster, Levin, Edmison, & Robibero, 2014). Cyberbullying can also be very public like disclosing immediate comments, claims, pictures and other stuff to a large audience (West, Foster, Levin, Edmison, & Robibero, 2014; Snyman & Loh, 2015). Target's

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family, friends, neighbors, and colleagues are those who can see the cyberbully and before the target sees it, it can harm the reputation of the target (Sarkar, 2015). In cyberbully, it is much easier to reach the target since cyberbullies can contact their targets by a different means such as emailing, phone, using social network sites and text messaging at any time, in any location and creates difficulty for targets to avoid bullies since they need to use the technologies for work and family communication (Snyman & Loh, 2015).

In traditional bullying there is an imbalance of strength between the aggressor and the victim and it a very important characteristic of bullying (Salmivalli & Nieminen, 2002; Vaillancourt, Hymel & McDougall, 2003; Veenstra et al., 2007) As a result, tall, big and strong individuals are more inclined to bully their shorter, smaller and weaker friends. However, in cyberbullying since nobody can see who is bullying, small, weak and tiny people can also bully their strong friend without being identified. (Vandebosch & Van Cleemput, 2008). Therefore, the difference in strength does not create any deterrence for cyberbullying since people cannot see each other. Lack of visibility is the second distinction between traditional bullying and cyberbullying. In the online interaction, it is not always the case that the victim knows who is attacking him/her (Vandebosch & Van Cleemput, 2008) even though the victim of cyberbullying mostly knows who is attacking him/her (Mishna, Saini & Solomon, 2009). In cyberbullying, anonymity is a result of many other conditions. For instance, how much the victim is hurt might not be realized by the attacker. Since in cyberbullying the victim is attacked online, what the tone of the message and whether the attacker using sarcasm is not clear. This is very important because the victim might think that the sender is condemning while the sender may be intending to make a joke. Therefore, it can be concluded that in traditional bullying distinct from cyberbullying, the victim identifies the sender, sarcasm can be understood, and how much the victim is hurt is obvious. The types of behaviors used online versus traditional bully are the other distinction. In traditional bullying, there may be punching, kicking, yelling, spitting, pushing, and so forth that cannot be carried out online.

2.3. Pervasiveness of Bullying

A study aiming to measure bullying conducted by Gardner et al. (2016) including employees working in New Zealand has included the experience of two or more negative acts at least every week during a period of at least six months. 15% of participants declared that they had been bullied and 2.8% of participants declared that they had been cyber-bullied, whereas 2% stated that they had experienced both. In another research, 46.2% of a sample of trainee doctors had stated that they had experienced at least one type of cyberbully (Farley, Coyne, Sprigg, Axtell, & Subramanian, 2015) while in a study conducted by Perreault (2011) among adult Internet users, it was found that 7% self-identified as having experienced cyberbullying. In a study among male union members, Privitera and Campbell (2009) 34% had declared that they had been bullied face-to-face, whereas 10.7% had been cyberbullied. It has been also found that those victims who experienced cyberbully had also experienced face-to-face workplace bullying (Ford, 2013; Olweus, 2012).

When results compared in relation to gender and role, women reported experiencing more workplace bullying compared to men. For cyberbully, no significant difference was found in terms of gender. In relation to position, managers reported more cyberbully than non-managers, but there were no differences

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in workplace bully. In relation to cyberbully, role makes a difference but not gender, because managers reported more cyberbully behaviors (Gardner et al., 2016).

As stated earlier, there exist several studies on youth facing incivility and cyberincivility. In higher education the frequency of incivility is very high, creating serious consequences for both students and faculty (Clark & Springer, 2007; Clark, 2009). Examples of incivil behaviors in the academic environment include rude comments or humiliation, threatening, and misbehaving psychologically and attacking physically (Clark & Springer, 2007; Ehman, 2005). Much effort has been put forth to prevent and reduce incivility in traditional classrooms but, nowadays cyberbullying has become more common (Clark, Werth, & Ahten, 2012).

Recent studies have found that among U.S. college students there is cyberbullying (Kraft & Wang, 2010; Schenk & Fremouw, 2012; Walker, Sockman, & Koehn, 2011) or repeated harassment, insults, or threats through e-mail or instant messaging 9% to11% (Finn, 2004). MacDonald and Roberts-Pittman (2010) carried out a study of 439 college students to find out how frequent the different bullying behaviors have been experienced in an electronic social environment. Results showed of the participants that 8.6% had cyber-bullied someone else, 21.9% had been cyber-bullied, and 38% knew someone who had faced cyber-bullying. Study conducted by Vance (2010) with 283 students and faculty reported that those who have the highest chance of harassment in the online environment are those older than 35 years, and in particular faculty. 4 4% of faculty and staff had reported the experience of cyber-bullying. In a recent study among college students in Greece, Kokkinos, Antoniadou, and Markos (2014) have found out that 11% of the sample has been cyberbullying victims (only), 14% of the sample has perpetrated cyberbullying (only), and 33% of the sample has both been a victim and perpetrator. In contrast, Arıcak (2009) and Dilmaç (2009) found that among Turkish college students, over half of them had been cyberbullied in their lifetime, and approximately one-fifth had cyberbullied others. Although the results of research related with the frequency of cyberbullying among college students vary widely, the results point out that a majority of college students is victims and/or perpetrators of cyberbullying.

2.4. Consequences of cyberbullying

When compared with workplace bullying, cyberbullying is thought to have more serious effects – due to cyberbully's anonymity, publicness, and access – but there is not much evidence about this issue (Barlett, 2015). While many studies have been carried out in relation to cyberbullying among children and adolescents in school, there exists not too much research on cyberbullying among adults in working life (Forssell, 2016).

Several research has revealed the negative outcomes of incivility, and bullying in workplace as psychological burnout, absenteeism, and turnover intentions (Martin & Hine, 2005; Miner-Rubino & Cortina, 2007; Lim & Cortina, 2005). Research also indicated that there is incidence of incivility almost daily for many workers (Sliter, Jex, Wolford, & McInnerney, 2010) which has negative impacts that decrease work efforts and performance quality over time (Sakurai & Jex, 2012) and has increased perceived injustice or expressed job dissatisfaction (Howard & Cordes, 2010).

In similar fashion, cyberincivility has found to have positive effect on burnout, absenteeism, and turnover intentions (Lim & Teo, 2009; Giumetti et al., 2012). A study conducted by Giumetti et al., (2016)

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also indicated cyberincivility has effect on lower job satisfaction and job performance levels. Limited study on cyberbullying also revealed cyberbullying is a concern among adults in the workplace. Research conducted revealed positive relationship between cyberbullying and job-related outcomes such as mental strain and stress as well as negative relationship with job satisfaction and performance (Coyne et al., 2017; Farley et al., 2015; Snyman & Loh, 2015). In addition, research has revealed relationship between cyberbullying and anxiety and intent to leave the organization (Baruch, 2005).

2.5. Attitude Toward Cyberbullying

Ajzen's (1985) Theory of Planned Behavior (TPB) – an extension of the Theory of Reasoned Action (TRA) – is one of the most frequently used models in literature, which explains behavior. According to the TPB, attitude towards an act is the major cause of behavioral intention, which predicts the actual behavior (Ajzen, 1985, 1991, 2005). Attitude is defined as "a disposition to respond favorably and unfavorably to an object, person, institution, or event" (Ajzen, 2005, p.3) and attitude toward a behavior is defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question."

In literature, both Theory of Reasoned Action (Doane, Pearson & Kelley, 2014) and Theory of Planned Behavior (Heirman & Walrave, 2012) are applied to explain cyberbullying and results revealed that there are positive attitudes towards cyberbullying, empathy towards cyber-victims. Results also reveal that cyberbullying perpetration is predicted by injunctive/descriptive norms regarding cyberbullying since norms play a role in shaping one's intention to harm others online.

The Barlett and Gentile Cyberbullying Model (Barlett & Gentile, 2012) is a newly proposed theory that aims to predict cyberbullying. What is different about this model is that, it is not a generic model that is applicable to measure different behaviors rather it is unique to the online world. BGCM is based on General Aggression (Anderson & Bushman, 2002) and General Learning Models (Gentile et al., 2009).

The General Learning Model (GLM) (Gentile et al., 2009) claims that continuously experiencing any stimulus will lead to the formation of attitudes. Learning is usually realized as a result of an observation of a behavior that is reinforced positively. As a result of this type of learning, it is assumed that positive attitudes toward those behaviors would be formed. Social psychological literature suggests that attitudes predict behavior (Ajzen & Fishbein, 2005). When this learning experience is applied to GLM it would not be wrong to expect that successful cyberbullying might be a result of positive attitudes toward cyberbullying. It can be summarized that building positive attitudes toward cyberbullying overtime and getting reinforcement for cyberbullying could predict successive cyberbullying behavior and intervene the establishment between cyberbullying behaviors over time.

General Aggression Model (Anderson & Bushman, 2002) suggests that when learning processes are reinforced, it might increase the frequency of behaviors in the future. As a result, when one learns that cyberbullying tactics are often anonymous and that the strength differential in traditional bully victim does not exist, one might engage in successive aggressive behaviors, such as cyberbullying.

In a study conducted by Barlett and Gentile (2012), results revealed that positive attitudes toward cyberbullying intervened the relation between strength differential and cyberbullying and anonymity and cyberbullying. In other words, positive attitudes toward cyberbullying anticipated cyberbullying behavior. Anonymity and strength differential anticipated positive attitudes toward cyberbullying and also

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cyberbullying behavior. These findings were in line with those suggested by Rivers and Noret (2010), claiming that anonymity permits the attacker to show more extreme acts of aggression online.

2.6. Purpose of this research

Purpose of this study is to analyze attitudes toward cyberbullying in higher education context in Turkey. Based on Cyberbullying Model by Barlett and Gentile, perceived anonymity and belief in the irrelevance of muscularity for online bullying (Bartlett, Chamberlein, & Witkower, 2017) will be investigated as the antecedents of attitudes toward cyberbullying. Thus, we hypothesized

H1: Perceived anonymity will increase positive attitudes toward cyberbullying.

H2: Perceived strength differential, belief in the irrelevance of muscularity will increase positive attitudes toward cyberbullying.

One of the characteristics of cyberbullying is the high probability of role exchange between bully and victim (Lee & Shin, 2017). People who are cyberbullied are more likely to participate in bullying others in cyberspace and previous research indicated this cyberbullying victimization was an important predictor of cyberbullying perpetration (Lee & Lee, 2013; Lee & Shin, 2017; Kwan & Skoric 2013; Roberto et al., 2014). Therefore, we expect attitudes toward cyberbullying will be influenced by persons' experience as a victim of cyberincivility and we hypothesized

H3: Being a victim of cyberincivility will increase positive attitudes toward cyberbullying.

Negative consequences of both bullying and cyberbullying have important impacts on organizations. However, cyberbullying literature on youth has shown psychological impact on the victim, as withdrawal, lower self-esteem and academic achievement, or even depression and suicide attempts (Hinduja & Patchin, 2008; Lazuras et al., 2013). Interestingly, Clark, Werth and Ahten, (2012) study revealed 44.5 % of students in their research sample found cyberincivility to be a mild and 6.6% found it to be a moderate problem. Only 4.4% of students perceived incivility as a serious problem.

Hence, we wanted to analyze the attitude toward cyberbullying in higher education and we chose our study sample from business administration students. In addition, to find out if there is a difference between the attitudes toward cyberbullying of students and students who have already joined the work force, we propose the below research question:

Q1: Does work status have an effect on positive attitudes toward cyberbullying.

The effect of gender on cyberbullying is controversial. Some studies have found males had higher cyberbullying perpetration than females (Dilmaç, 2009; Lee & Shin, 2017) and some other studies indicate there were no gender effect on cyberbullying frequency (Roberto et al., 2014). Arıcak (2009) in his study found males engaged in cyberbullying and pretended to be someone else in cyberspace significantly more frequently than females as well, however he also found no gender differences in relation to victimization.

Thus, we propose a research question regarding gender as below:

Q2: Does gender have an effect on positive attitudes toward cyberbullying.

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3. Research Method

3.1. Sample

Data for this study are collected from business administration students of a public university in Turkey. Five hundred questionnaires are distributed in total and 481 usable questionnaires returned with 96.0% return rate. The sample consists of 257 females (53.4%) and 222 males (46.2%). 56.8% of the respondents have work experience whereas 43.2% students did not have any work experience so far.

3.2. Instrument

A multi-item questionnaire is used in this study. "Attitudes toward cyberbullying" is measured with nine items and "anonymity and strength differential" is measured with ten items developed by Barlett and Gentile (2012). To measure "victim of incivility" a fourteen-item measure is adapted from Lim and Teo's (2009) cyber incivility scale. Original scale measured incivility committed via e-mails, authors adopted questions to incivility committed via social media and instant messages. All the items are measured on a five-point interval scale where "totally disagree" equals 1 and "totally agree" equals 5.

4. Findings

4.1. Measurement validation

To assess the reliability and validity of the measures, confirmatory fit analyses (CFA) are applied to all scales used. Originally, "attitudes toward cyberbullying" and "cyberincivility" scales were unidimensional whereas "facilitators of cyberbullying" was two-dimensional as anonymity and strength differential. However, as can be seen from Table 1. CFA results did not indicate good fit for scales. As the scales were not previously used in Turkish context to our knowledge, to identify and understand the underlying structure of the scales an exploratory factor analysis (EFA) was planned as an alternative.

Table 01. Confirmatory factor analyses results of constructs

Construct: attitudes toward cyberbullying								
Model	**Item #**	**N**	**χ^2(*df*)**	**CFI**	**TLI**	**GFI**	**SRMR**	**RMSEA**
1 factor	9	481	306.10 (*27*)	.72	.63	.87	.10	.15
3 factor (EFA)	8	237	48.75 (*17*)	.94	.90	.95	.05	.08
Construct: facilitators of cyberbullying								
Model	**Item #**	**N**	**χ^2(*df*)**	**CFI**	**TLI**	**GFI**	**SRMR**	**RMSEA**
2 factor	10	481	287.27(*34*)	.82	.76	.86	.07	.13
2 factor (EFA)	6	237	39.85(*7*)	.91	89	.95	.07	.08
Construct: victim of cyberincivility								
Model	**Item #**	**N**	**χ^2(*df*)**	**CFI**	**TLI**	**GFI**	**SRMR**	**RMSEA**
1 factor	14	481	972.91 (*77*)	.68	.62	.70	.07	.16
2 factor (EFA)	14	237	170.01 (*74*)	.93	.91	.95	.06	.07

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Table 02. Construct reliabilities and explained variances

Construct	Item #	N	α	VE	CR	AVE
Attitudes toward cyberbullying						
Kidding	3	244	.78	26.49	.74	.49
Tit for tat	3	244	.72	20.18	.73	.47
Disapprove	2	244	.74	19.08	.78	.65
Facilitators of cyberbullying						
Anonymity	3	244	.71	31.96	.74	.37
Strength differential	3	244	.69	30.92	.77	.53
Victim of cyberincivility						
Humiliation	7	244	.88	29.90	.81	.38
Ignorance	7	244	.83	25.99	.85	.46

α=Cronbach's alpha; VE=Variance explained CR= Construct Reliability; AVE=Average variance extracted

It is necessary to confirm the new component structure established through EFA and using the same data set would erroneously increase the fit measures. Therefore by random sampling technique with Bernoulli distribution, we divided the data set into half (Hair, Black, Babin & Anderson, 2010) to use separate data sets for model building (N=244) and (N=237), and validation as recommended by Lattin, Carroll, and Green (2003). As a result of the EFA, "attitudes toward cyberbullying" converged into three factors with eight items, "facilitators of cyberbullying" converged into two items again yet with six items, and "victim of cyberincivility" converged into two factors with fourteen items. All scales' new component structures are tested by CFA and confirmed good fit (χ^2(17, N=237)=48.75, p=.00, GFI=0.95, CFI=0.94, TLI=.90, SRMR=.05 and RMSEA=0.08; χ^2(7, N=237)=39.85, p=.00, GFI=0.95, CFI=0.91, TLI=.89, SRMR=.07 and RMSEA=0.08; and χ^2(74, N=237)=170.01, p=.00, GFI=0.95, CFI=0.93, TLI=.92, SRMR=.06 and RMSEA=0.07 respectively.)

Names given to factors are reported in Table 2. Construct reliabilities of scales, which lied between .73 and .85, indicated internal consistency of the dimensions (Hair, Black, Babin, & Anderson, 2010; Netemeyer, Bearden, & Sharma, 2003). Average variance extracted (AVE) reflects the overall amount of variance accounted for by the latent construct. Fornell and Larcker (1981) favor level of 0.50 or above, but for new scales values more than 0.45 seems reasonable (Netemeyer, Bearden, & Sharma, 2003). As can be seen from Table 2 except for anonymity and humiliation all the AVEs were above .45 threshold.

4.2. Structural model

After the validation of constructs, the hypothesized models are tested. First, the effect of "strength differential" and "anonymity" on dimensions of "attitudes toward cyberbullying" is analyzed. Then "humiliation" and "ignorance" added to the model. The structural model results of the both models indicated good fit to the data (Model 1: χ^2(*df*)=255.05(*70*), *p*=00, CFI=.91, TLI=.89, GFI=.93, SRMR=.06, RMSEA=.07, and Model 2: χ^2(*df*)=793.03(*330*), *p*=00, CFI=.91, TLI=.90, GFI=.90, SRMR=.05, RMSEA=.05).

In Model 1 findings indicated that strength differential has high effect on all dimensions of attitudes toward cyberbullying (β=-.69, *p*=.00, β=-.60, *p*=.00, β=-.69, *p*=.00) as strength differential perception of the respondents increase their positive attitudes toward kidding and tit for tat increases and disapproval decreases. According to findings, anonymity did not have significant effect on positive attitude toward

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kidding however; it weakly explained positive attitudes toward tit for tat and disapproval (β=-.22, p=.05, β=.27, p=.01). Interestingly, path between anonymity and disapproval was positive.

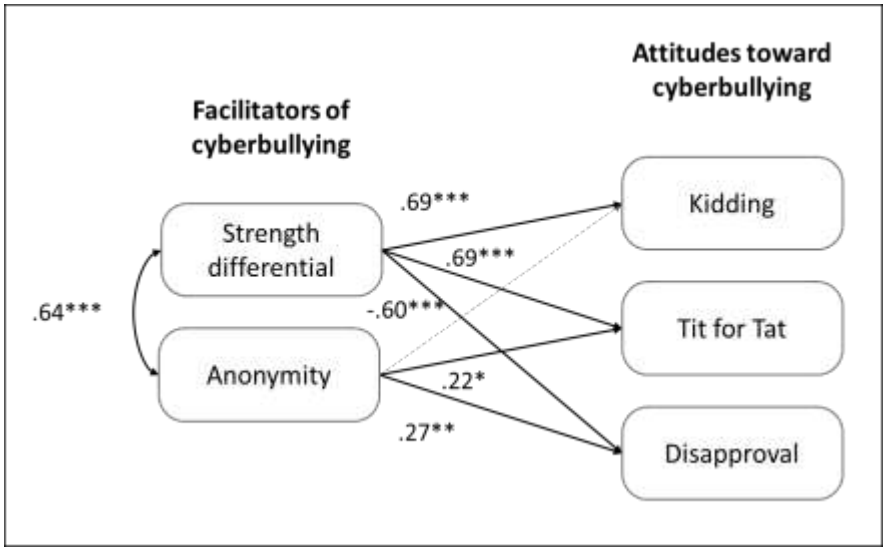

Figure 01. Structural model 1 (standardized coefficients presented)

When being a victim of cyberincivility is added to the model, it is found that humiliation had positive effect on strength differential and ignorance had positive effect on anonymity (β=-.20, p=.01, β=.30, p=.00 respectively). In addition being humiliated increased the positive attitude toward kidding and being ignored in cyber environment increases the positive attitude toward tit for tat (β=-.17, p=.01, β=.19, p=.01 respectively). Path results from Model 1 was repeated with high explanatory effect of strength differential on positive attitudes toward cyberbullying. Only when ignorance was added to the model, being ignored in the cyber environment increased the anonymity perception of respondents and which triggered the effect of anonymity on disapproval to increase compared to model 1 and decreased the effect of anonymity on tit for tat compared to model 1 (β=.32, p=.01, β=.18, p=.05).

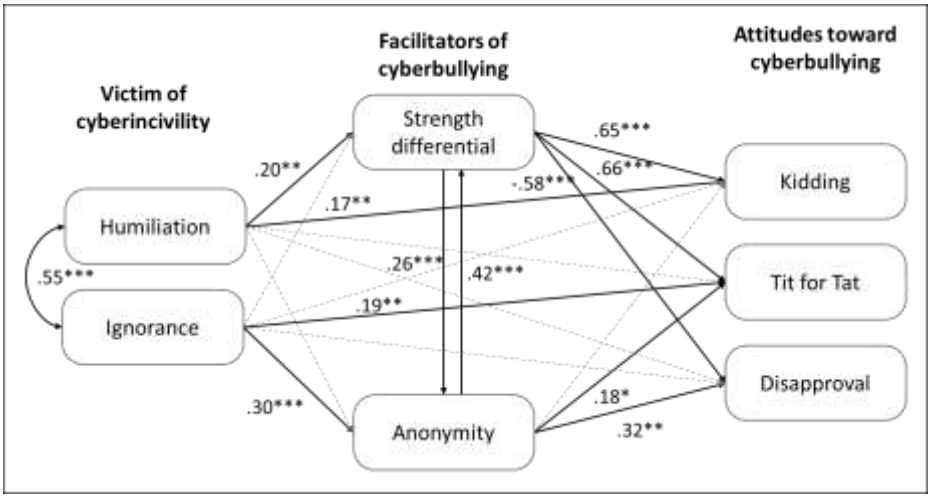

Figure 02. Structural model 2 (standardized coefficients presented)

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4.3. MANOVA tests

To analyze more deeply, the constructs with respect to gender and work status multivariate analysis of variance (MANOVA) tests are conducted. Prior the analyses the summated scores of the dimensions are calculated.

Table 03. Attitudes toward cyberbullying MANOVA results: multivariate and univariate tests for group differences

Multivariate Tests					
Effect	**Pillai's Trace**	**F value**	**Hypothesis *df***	**Error *df***	***p* value**
Gender	.08	13.34	3	473	.00
Work status	.01	1.95	3	473	.12
Gender * work status	.00	.25	3	473	.86

Univariate Tests (Tests of Between-Subjects Effects) *						
Effect	**Dependent Variable**	**Sum of Square**	***df***	**Mean Square**	***F* value**	***p* value**
Gender	Kidding	21.44	1	21.44	28.46	.00
	Disapproval	26.02	1	26.02	18.21	.00
Work status	Disapproval	5.35	1	5.35	3.75	.05

** because of space limitation only p<.1 significant results are given*

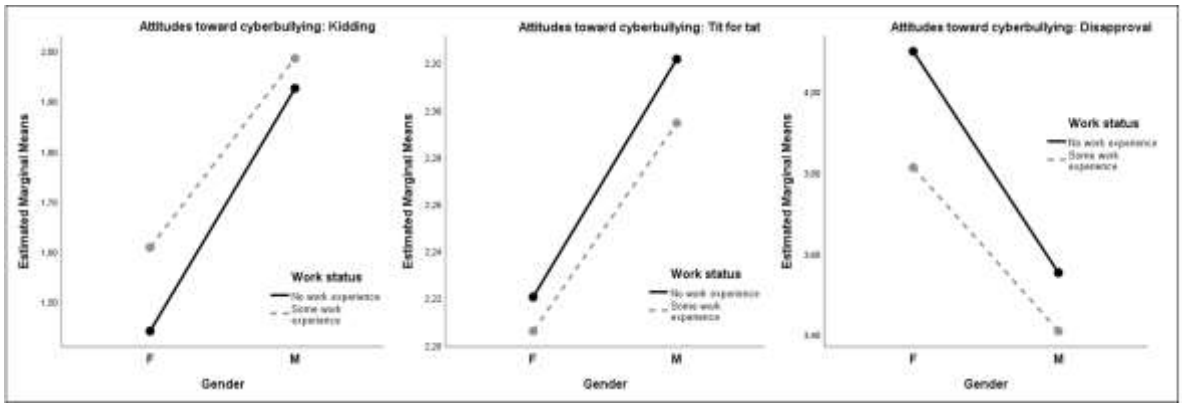

Figure 03. Gender and work status interaction for attitudes toward cyber bullying

In attitudes toward cyberbullying MANOVA results, Pillai's Trace Multivariate tests for group differences indicated there was statistical difference in main effects of gender (Pillai Trace=.08, F(473)=13.34, *p*=.00). Univariate Tests indicated males had higher positive attitude toward kidding than females (M=1.96, M=1.53) and females had higher positive attitude toward disapproval than males (M=3.95, M=3.46) See Table 03 and Figure 03.

Table 04. Antecedents of cyber bullying MANOVA results: multivariate and univariate tests for group differences

Multivariate Tests					
Effect	**Pillai's Trace**	**F value**	**Hypothesis *df***	**Error *df***	***p* value**
Gender	.08	20.46	2	474	.00
Work status	.01	1.24	2	474	.29
Gender * work status	.01	1.95	2	474	.14

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Univariate Tests (Tests of Between-Subjects Effects) *						
Effect	**Dependent Variable**	**Sum of Square**	***df***	**Mean Square**	***F* value**	***p* value**
Gender	Strength differential	37.04	1	37.04	38.28	.00
Gender * work status	Anonymity	3.38	1	3.38	2.75	.09
** because of space limitation only p<.1 significant results are given*						

In antecedents of cyber bullying MANOVA results, Pillai's Trace Multivariate tests for group differences indicated there was statistical difference in main effects of gender (Pillai Trace=.08, F(474)=20.46, *p*=.00). Univariate Tests indicated males had higher perception for strength differential than females (M=2.42, M=1.87) See Table 04 and Figure 04. Multivariate and univariate interaction of gender and work status were not significant at 95% CI. However, depiction of plots give more insights Figure 04 implies that males with no work experience have perceived anonymity more than males with work experience and females with work experience have perceived anonymity more and females with no work experience. It should be noted the difference between anonymity scores of females and males with work experience was not statistically significant.

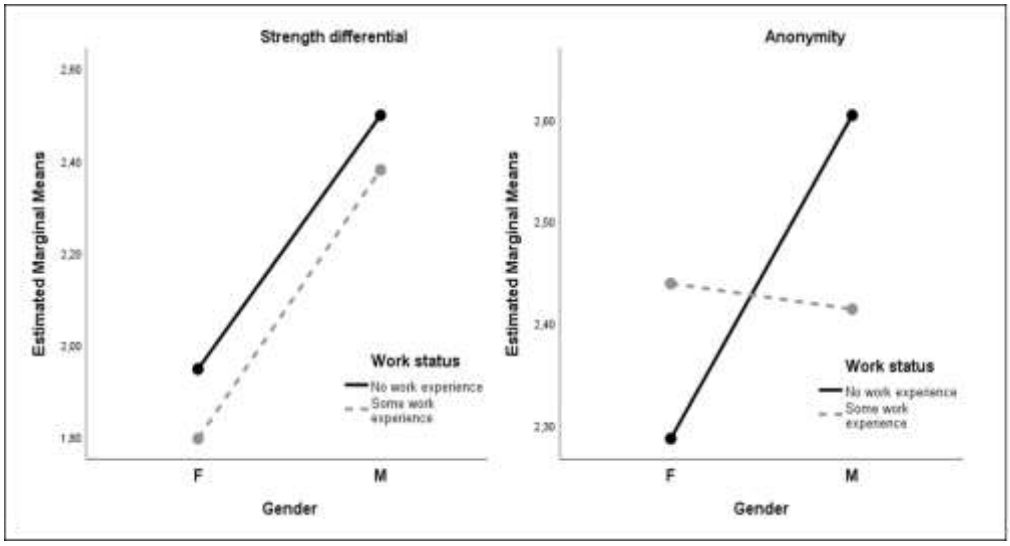

Figure 04. Gender work status interaction for antecedents of cyber bullying

In victim of cyber bullying MANOVA results, Pillai's Trace Multivariate tests for group differences indicated there was a statistical difference in main effects of work status (Pillai Trace=.03, F(474)=7.55, *p*=.00). Univariate tests indicated students with work experience, experienced humiliation more than students with no experience (M=1.49, M=1.30) students with work experience, experienced more ignorance than students with no experience (M=2.06, M=1.88) See Table 05 and Figure 05.

Table 05. Victim of cyberbullying MANOVA results: multivariate and univariate tests for group differences

Multivariate Tests					
Effect	**Pillai's Trace**	**F value**	**Hypothesis *df***	**Error *df***	***p* value**
Gender	.00	.97	2	474	.38
Work status	.03	7.55	2	474	.00
Gender * work status	.00	.90	2	474	.41

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Univariate Tests (Tests of Between-Subjects Effects) *						
Effect	**Dependent Variable**	**Sum of Square**	***Df***	**Mean Square**	***F* value**	***p* value**
Work status	Humiliation	4.19	1	4.19	14.03	.00
	Ignorance	3.54	1	3.54	7.15	.01

** because of space limitation only p<.1 significant results are given*

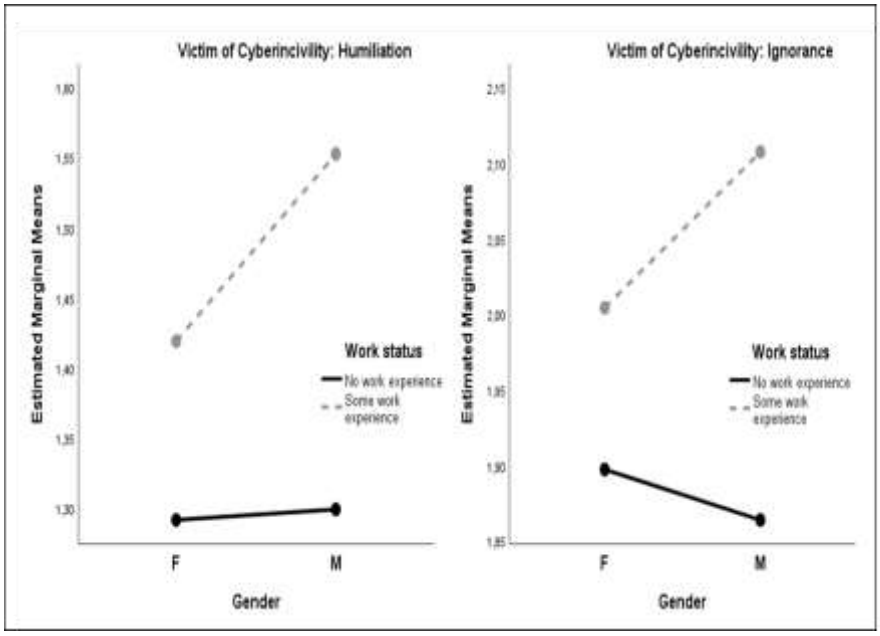

Figure 05. Gender work status interaction for victim of cyber bullying

5. Conclusion and Discussions

First analyses indicated factor structures of attitudes toward cyberbullying and cyberincivility victimization were not unidimensional. As a result of the analyses, it can be concluded that as strength differential perception of the respondents increase their positive attitudes toward kidding and tit for tat increases and disapproval decreases. Anonymity did not have significant effect on positive attitude toward kidding however; it weakly explained positive attitudes toward tit for tat and disapproval. It can be concluded that when one perceives that there is a difference in strength (either physical or in terms of status), he/she might be more inclined to develop attitudes for kidding or taking revenge for the past behaviors he had encountered in the past. This attitude might turn into a behavior since GLM states that attitudes lead to behavior.

However, when being a victim of cyber-incivility is added to the model, it is found that humiliation had positive effect on strength differential and ignorance had positive effect on anonymity. In addition, being humiliated is found to increase the positive attitude toward kidding and being ignored in cyber environment is found to increase the positive attitude toward tit for tat. It is also found that being a victim of cyberbullying in the past might lead one to develop certain attitudes. If one has been humiliated as a victim in the past, it might contribute to the development of a positive attitude for kidding and if ignored as a victim he might develop a positive attitude for ignoring the respondent for taking revenge.

When ignorance was added to the model, being ignored in the cyber environment increased the anonymity perception of respondents and that triggered the effect of anonymity on disapproval to increase

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and decreased the effect of anonymity on tit for tat. This might suggest that when one is ignored in cyber environment it might lead to disapproval through keeping oneself anonymous. Being ignored might facilitate to keep one self hidden and show disapproval. On the other hand, when one is ignored, it might not lead to take revenge so much by facilitating being anonymous.

With respect to gender, males had higher positive attitude toward kidding than females. Females had higher positive attitude toward disapproval than males. In antecedents of cyberbullying, it was found that males had higher perception for strength differential than females.

In relation to gender, it is found that males had experienced humiliation and ignorance more than females. Males with no work experience are found to perceive anonymity more than males with experience and females with work experience perceived anonymity more than females with no work experience.

Even though the low mean values indicate the concepts discussed in this study were not highly experienced by the students, the positive attitude towards cyberbullying due to facilitators and being a victim suggest, the more people are faced with cyberbullying the more will be their tendency to cyberbully. Especially if the gender of the cyberbully victim is male, this consequence will be faced more. Literature reveals the cyberincivility and especially cyberbullying is an increasing phenomenon, which will cause more cyberbullying. Considering the negative impact of cyberbullying and the increasing amount of information technology in organizational life, managers need to take an action against cyberbullying such as the use of formal/informal policies, effective communication, and training.

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