Athens Journal of Social Sciences- Volume 6, Issue 1 – Pages 1-18

Interaction of Auditory Status, Child Maltreatment, and Victimization of Intimate Partner Violence

By Judy L. Porter[*]
Laverne Mcquiller Williams[†]
Kristy Love[‡]

This study explores the effects of being mistreated as a child and the possibility of becoming a victim of intimate partner violence with an emphasis on auditory status. Deaf or head of hearing children experience childhood mistreatment, including psychological and physical abuse at a higher rate than hearing children. This study examines the hypothesis that having been mistreated as a child and being a member of a minority and disabled group leads to a greater likelihood of becoming a victim of interpersonal violence. The study also researches the auditory status of the partner dyad – hearing with hearing, hearing with Deaf, hearing with hard of hearing, Deaf with Deaf, and hard of hearing with hard of hearing. The hypothesis that Deaf or hard of hearing partnered with hearing will experience greater rates of abuse is tested.

Keywords: *abuse - psychological, child-maltreatment, deaf, physical.*

Introduction

Intimate partner violence (IPV) is pervasive on college and university campuses. Intimate partner violence refers to violence between individuals in dating and cohabiting relationships and encompasses physical and psychological abuse (World Health Organization 2012). Although several methodological issues—including the time frame assessed, definitions employed, and questions asked—make comparisons difficult, research has consistently shown that college students both within and outside of the United States are at a high risk of intimate partner violence (Chan et al. 2008, Fass et al. 2008, NCADV 2016).

Because IPV among college students occurs at alarmingly high rates, it is important to understand the factors that may increase the risk of victimization. One possible risk factor is child maltreatment. Child maltreatment is one of the most commonly studied risk factors for dating violence (Jennings et al. 2011, Riggs et al. 2009). Both witnessing interparental violence and experiencing child abuse have been found to increase the likelihood of victimization among college students (Langhinrichsen-Rohling et al. 2004).

Despite increased attention paid to IPV on college and university campuses,

[*]Associate Professor, Department of Criminal Justice, Rochester Institute of Technology, USA.
[†]Associate Dean, College of Liberal Arts, Rochester Institute of Technology, USA.
[‡]American Sign Language Interpreter, National Institute for the Deaf, Rochester Institute of Technology, USA.

https://doi.org/10.30958/ajss.6-1-1 doi=10.30958/ajss.6-1-1

only a limited number of studies have focused on IPV among college students who are Deaf[1] or hard of hearing (Anderson 2010, Anderson and Leigh 2011, Mason 2010, Porter et al. 2011a, 2011b). The importance of examining IPV within the context of auditory status cannot be understated as studies based on U.S. community samples have indicated that Deaf and hard of hearing individuals are more likely to be victimized over their lifetime than hearing individuals (Brownridge 2009, Johnston-McCabe et al. 2011). Accordingly, the purpose of this study is to examine the extent of victimization among a sample of female and male college students and whether these experiences vary by auditory status. Moreover, this study examines IPV and the auditory status of the partner dyad – hearing with hearing, hearing with Deaf, hearing with hard of hearing, Deaf with Deaf, and hard of hearing with hard of hearing to investigate whether differing experiences with IPV exist within these dyads. In addition, we also explore whether child maltreatment, namely childhood physical abuse and witnessing interparental abuse, increase the risk of IPV for adult victimization. Having a better understanding of the rates of victimization and risk factors that may increase students' risk of experiencing abuse is important in developing and implementing target prevention and intervention programs.

IPV among College Students

Estimates suggest that college students experience high rates of dating violence that range from 17% and 39% for physical abuse (Dye and Eckhard 2000, Edwards 2015, Orcutt et al. 2005, Perry and Fromuth 2005, Smith et al. 2014) and 65% and 86% for psychological abuse (Black et al. 2010, Cercone et al. 2005, Cogan and Ballinger 2006, Forke et al. 2008, Hines and Saudino 2003). Both men and women have been found experience abuse while in college. For example, Perry and Fromuth's (2005) study of 50 unmarried college couples from a public southern university found that 30% of women and 42% of men reported receiving physical violence by their partner. Other studies suggest that the rates of receiving and inflicting abuse are similar. Similarly, Harned's (2001) study of college men and women reported that both genders experienced similar rates of physical abuse from their partners and both genders were likely to be victims of psychological abuse.

To date only a handful of studies have examined auditory status within the context of IPV in college relationships. Collectively, these studies using college samples in the U.S. indicate that prevalence rates of experiencing intimate partner violence were more than doubled for Deaf and hard of hearing individuals when compared to hearing populations (Anderson and Leigh 2011, Porter and McQuiller Williams 2011a, 2011b). For example, in a 2010 study of Deaf

[1]In the United States, Deaf people do not see themselves as having a disability, but rather have a culture and way of communication that is denied by the dominate hearing culture (Sadusky and Obinna 2002). The use of the capital "D" is to acknowledge the unique cultural identity of Deaf individuals. This includes a strong affiliation to the Deaf community and a shared language (American Sign Language) (Anderson et al. 2011).

women undergraduates at a college in Washington D.C., it was found that Deaf women were twice as likely to report experiencing physical assault and psychological aggression as hearing students in the previous year (Anderson and Leigh 2011). Although these empirical studies contribute to our understanding of the prevalence of IPV victimization among Deaf and hard of hearing college students, little is known the risk factors that increase the risk of victimization. To date, only one study has examined the prevalence of IPV comparing hearing- Deaf versus Deaf –Deaf relationships (Anderson and Pezzarossi 2013). Using a sample of college women, findings revealed that hearing status of one's partner did not account for significant differences in psychological abuse or physical abuse. Although this study is helpful in contributing to our understanding of IPV comparing differing groups by auditory status, the study is limited in that it only focused on the victimization experiences of women.

Child Maltreatment and the Risk of IPV Victimization and Perpetration

In analyzing risk factors for dating violence, numerous studies using hearing samples have examined the link between experiencing child abuse and/or witnessing interparental violence in the family of origin and later partner victimization (Cyr et al. 2006, Foshee et al. 2008, Gover at al. 2011, Maas et al. 2010). Research in this area suggests that for both men and women, parent-to-child physical abuse is associated with physical partner violence as both victim and perpetrator (Coffeyet al. 1996, Foshee et al. 2004, Gomez 2011, Jankowski et al. 1999, Lavoie et al. 2002, Millett et al. 2013, O'Keefe 2005, Stith et al. 2000).

Studies examining the association between witnessing interparental violence and subsequent violence have produced mixed results some studies finding significance with partner victimization (Brownridge 2006, Cappell and Heiner 1990, Kwong et al. 2003). However, other studies did not find a significant relationship between family of origin variables and subsequent partner violence (Busby et al. 2008, Foshee et al. 2005). While there is evidence that witnessing or experiencing parental violence is a risk factor for adult victimization, not all children exposed to family of origin violence later inflict or experience violence. As such, researchers have suggested that trajectories for IPV may operate differently for women and women. For example, some studies reveal moderate to strong relationships between interparental violence and subsequent partner victimization only for women (Gover et al. 2008), interparental violence and subsequent partner perpetration only for men (Chen and White 2004), parent-to-child abuse and subsequent partner victimization only for women (Chen and White 2004, Stith et al. 2000), and parent-to-child abuse and subsequent partner perpetration only for women. However, Fergusson, Boden, and Horwood's (2006) results reported no significant victimization differences between witnessing violence and the men and women in their sample.

Current Study

The current study adds to the IPV literature in two ways. First, we examine the extent of partner violence victimization among a sample of hearing, Deaf, and hard of hearing male and female college students, and whether these experiences vary by auditory status. By including male and female college students in the analysis, this study is able to explore whether auditory status increases the risk for partner violence for both sexes, not just women. Moreover, this study goes one step further by investigating auditory status of the partner dyad to examine whether IPV experiences differ within these dyads. Second, this study makes a contribution by exploring whether risk factors other than disability increase the risk of partner violence victimization. This is an important contribution because very little, if anything, has been published about risk factors for partner violence, other than disability, for college students who are Deaf or hard of hearing.

Data Collection and Measures

The purpose of this study was to determine whether data collected indicated significant correlations between auditory status and intimate partner victimization among Deaf or hard of hearing students. The purpose was also to examine if Deaf and hard of hearing students experience and witness family abuse at higher rates than their hearing peers and if that relationship impacts their experiences with partner abuse in college. The cross-sectional data for this study was collected from a northeastern university in the U.S. Thirty-six classes were randomly selected by the researchers. After receiving approval from the Institutional Review Board (IRB), surveys were distributed within the randomly selected classes to all students. Students were informed that the survey was voluntary and they could stop at any time. The survey was distributed in the spring of 2011. A total of 260 respondents completed the survey and we had a response rate of 96%.

Measures

Gender, auditory status, race and college year status are the independent variables. Three childhood maltreatment variables were assessed: experiencing child abuse, witnessing mother-to-father physical violence and witnessing father-to-mother physical violence. The child abuse measure was created from six items from the Parent-Child Conflict Tactics Scale (Straus et al. 1998) to indicate whether a respondent experienced physical abuse at the hands of a parent, caregiver, or guardian. Witnessing inter-parental abuse was measured by asking respondents whether before the age of 18, they had witnessed their mother hit their father and/or witnessed their father hit their mother. Students were able to answer never, once or twice, three to ten times, or more than ten times. The responses were coded as: 1=never, 2=once or twice, 3=three to ten times and 4=more than ten times. Due to sparse responses in the categories

responses were coded for analysis as dichotomous yes or no.

The child maltreatment variable was created by combining the frequencies from the self-reported questions: "Parent/caregiver threated you with a gun or a knife", "Parent/caregiver choked you", "Parent/caregiver beat you up", and "Parent/caregiver forced you to have sex (vaginal, anal, or oral intercourse) against your will". Students were able to answer, never, once or twice, three to ten times, or more than ten times. The responses were coded as: 1=never, 2=once or twice, 3=three to ten times and 4=more than ten times. Responses were coded dichotomous yes or no due to sparse responses in the categories.

Gender was self-reported and coded as a dichotomous variable where 1= female and 0 = male. Auditory status was self-reported with the question: "Which best describes your auditory status?" Students were able to answer, hearing, hard of hearing, or Deaf. Race was self-reported with the question: "How do you usually describe yourself?" Race was combined to create a dichotomous variable where 0=non-white and 1=white.

Conflict Tactics Scale Psychological Index (CTSPsychIndex), Conflict Tactics Scale Physical Index (CTSPhysIndex). To arrive at the measures for psychological and physical abuse within the CTSPsychIndex and CTSPhysIndex, Straus et al.'s (1996) Revised Conflict Tactics Scale (CTS2) was used to measure intimate partner violence by "a partner" over the previous school year. Use of the term "partner" denotes intimate partner violence may exist among heterosexual and same-sex partners. The CTS2 is a commonly used measure of intimate partner violence that measures the frequency with which respondents had experienced psychological and physical abuse from their dating partners. Three items assessed psychological abuse (e.g., insults, and threats) and seven items assessed physical abuse (e.g., slapping, pushing, kicking). Psychometric analyses conducted by Anderson and Leigh (2011) reported sound construct validity between the psychological and physical abuse scales for Deaf and Hard of Hearing college students. CTSPsychIndex was created by combining the self-reported questions: "Partner insulted or swore at you?", "Partner put you down in front of family and/or friends?", and "Partner threatened to hit or throw something at you?" CTSPhysIndex was created by combining the self-reported questions: "Partner pushed, grabbed, or shoved you?", "Partner slapped you?", "Partner kicked or bit you?", "Partner beat you up?", "Partner hit you or tried to hit you with something?", "Partner choked you?", "Partner threatened you with a gun or a knife?"

Findings/Results

Demographic Profile of Respondents

Women were slightly over half of the respondents (54.6%). The majority of respondents were white (55.8%), black not Hispanic were nearly 16% of the respondents, while Hispanic or Latino were 13%, Asian or Pacific Islander were just under 10%, with America Indian or Alaskan Native at under 3% of

the respondents. Auditory status was self-identified and characterized by hearing, Deaf, and hard of hearing. About 45% of respondents identified as hearing, close to 40% identified as Deaf, and about 15% identified as hard of hearing (Table 1).

Table 1. *Respondents' Gender, Race/Ethnicity, and Auditory Status (N=260)*

	n	Percent
Gender		
Male	117	45.0
Female	142	54.6
Transgender	1	.4
Total	260	100.0
Race/Ethnicity		
White	145	55.8
Black not Hispanic	41	15.8
Hispanic/Latino	34	13.1
Asian/Pacific Islander	25	9.6
American Indian/Alaskan Native	7	2.7
Other	7	2.7
Missing	1	.4
Total	260	100.0
Auditory Status		
Hearing	118	46.1
Deaf	98	38.3
Hard of Hearing	40	15.6
Total	256	100.0
Missing	4	
Total	260	

Of the 255 respondents 138 were Deaf or hard of hearing (DHH) compared with 117 respondents who identified as hearing. The majority of respondents identified as white (n=103) compared with those who identified as a member of a racial or ethnic minority group (n=85). Of the 47 hearing men 31 were white and 16 were members of a racial or ethnic minority (REM). Of the 70 hearing women 38 were white and 32 were REM. Among the 138 DHH respondents, 67 were men and 71 were women. There were 38 white hearing women and 31 white hearing men compared to 16 REM hearing men and 32 REM hearing women. There were 38 DHH white men and 29 REM DHH men with 34 white DHH women and 37 REM DHH women (Table 2).

Table 2. *Cross-tabulation of Gender by Race/Ethnicity by Auditory Status (N = 260)*

Cross-tabulation of Gender by Race/Ethnicity by Auditory Status						
Auditory Status				**Race/Ethnicity**		**Total**
				White	**REM**[2]	
Hearing	Gender	Male	Count	31	16	47
			% within respondent gender	66.0%	34.0%	100.0%
			% within respondent race	44.9%	33.3%	40.2%
		Female	Count	38	32	70
			% within respondent gender	54.3%	45.7%	100.0%
			% within respondent race	55.1%	66.7%	59.8%
	Total		Count	69	48	117
			% within respondent gender	59.0%	41.0%	100.0%
			% within respondent race	100.0%	100.0%	100.0%
DHH[3]	Gender	male	Count	38	29	67
			% within respondent gender	56.7%	43.3%	100.0%
			% within respondent race	52.8%	43.9%	48.6%
		female	Count	34	37	71
			% within respondent gender	47.9%	52.1%	100.0%
			% within respondent race	47.2%	56.1%	51.4%
	Total		Count	72	66	138
			% within respondent gender	52.2%	47.8%	100.0%
			% within respondent race	100.0%	100.0%	100.0%
Total	Gender	male	Count	69	45	114
			% within respondent gender	60.5%	39.5%	100.0%
			% within respondent race	48.9%	39.5%	44.7%
		female	Count	72	69	141
			% within respondent gender	51.1%	48.9%	100.0%
			% within respondent race	51.1%	60.5%	55.3%
	Total		Count	141	114	255
			% within respondent gender	55.3%	44.7%	100.0%
			% within respondent race	100.0%	100.0%	100.0%

Experiences of Psychological and Physical Abuse

Nearly 60% of respondents reported experiencing psychological or physical abuse (n = 145, 59.2%) (Table 3). Over 40% of responders reported physical abuse (Table 4), while over half reported psychological abuse (Table 5). There

[2]REM indicates a member of a racial or ethnic minority
[3]DHH indicates a respondent who identified as Deaf of hard of hearing

was not statistical significance for any of the auditory statuses for either a combined physical/psychological or separate physical and psychological abuse (Tables 6–8). Over 60% of the offenders were a partner of the respondent at the time of the abuse (n=105, 60.7%). The next largest category of offenders were described as a date (n = 37, 21.4%) (Table 9).

Table 3. *Psychological and Physical Abuse for All Respondents (N = 260)*

	Frequency	**Percent**	**Cumulative Percent**
No	100	40.8	40.8
Yes	145	59.2	100
Total	245	100.0	
Missing	15		
Total	260		

Table 4. *Physical Abuse for all Respondents (N = 260***)**

	Frequency	**Percent**	**Cumulative Percent**
No	141	57.3	57.3
Yes	105	42.7	100
Total	246	100.0	
Missing	14		

Table 5. *Psychological Abuse for all Respondents (N = 260)*

	Frequency	**Percent**	**Cumulative Percent**
No	118	47.4	47.4
Yes	131	52.6	100
Total	249	100	
Missing	11		
Total	260		

Table 6. *Psychological and Physical Abuse for All Respondents by Auditory Status (N = 245)*

	Physical and Psychological Abuse			**Chi-Square (2-sided)**
	No	**Yes**	**Total**	.307
Hearing % within auditory status % within psychological abuse	47 41.6 47.0	66 58.4 45.5	113 100 436.1	
Deaf % within auditory status % within psychological abuse	42 44.2 42.0	53 55.8 36.6	95 100 38.8	
Hard of Hearing % within auditory status % within psychological abuse	11 29.7 11.0	26 70.3 17.9	37 100 15.1	
Total	100	145	245	

Table 7. *Physical Abuse for All Respondents by Auditory Status (N = 245)*

	Physical and Psychological Abuse			**Chi-Square (2-sided)**
	No	**Yes**	**Total**	.795
Hearing % within auditory status % within psychological abuse	63 55.8 44.7	50 44.2 47.6	113 100 45.9	
Deaf % within auditory status % within psychological abuse	57 60.0 40.4	38 40.0 36.2	95 100 38.6	
Hard of Hearing % within auditory status % within psychological abuse	21 55.3 14.9	17 44.7 16.2	38 100 15.4	
Total	141	105	246	

Table 8. *Psychological Abuse for All Respondents by Auditory Status (N = 245)*

	Physical and Psychological Abuse			**Chi-Square (2-sided)**
	No	**Yes**	**Total**	.639
Hearing % within auditory status % within psychological abuse	54 47.4 45.8	60 52.6 45.8	114 100 45.8	
Deaf % within auditory status % within psychological abuse	48 50.0 40.7	48 50.0 36.6	96 100 38.6	
Hard of Hearing % within auditory status % within psychological abuse	16 41.0 13.6	23 59.0 17.6	39 100 15.7	
Total	118	131	249	

Table 9. *Relationship with Abuser*

	Frequency	**Percent**	**Cumulative Percent**
Partner	105	60.7	60.7
Spouse	3	1.7	62.4
Acquaintance	7	4.0	66.5
Date	37	21.4	87.9
Stranger	9	5.2	93.1
Family member	4	2.3	95.4
Other	8	4.6	100.0
Total	173	100.0	
Missing	87		
Total	260		

A cross tabulation of victim's and offender's auditory status reveals that the majority of abuse is intra-auditory status. Auditory status achieved statistical significance (Chi-Square .000) – there is a statistically significant difference

between hearing, Deaf, and hard of hearing victims and offenders. Hearing victims are assaulted by hearing offenders over 75% of the time, while there are no Deaf offenders with hearing victims and only 2 hearing victims report hard of hearing offenders (20%). Deaf victims are assaulted 77% of the time by Deaf offenders but also experience abuse at the hands of hearing offenders 11.3% of the time. Hard of hearing victims experience abuse at the hands of other hard of hearing individuals 40% of the time, Deaf offenders 40% of the time and at the hands of hearing offenders 20% of the time. Abuse is primarily intra-auditory status for Deaf and Hearing, but not for hard of hearing. Hard of hearing is spread across auditory status although the majority of hard of hearing victims experience abuse at the hands of someone who is either Deaf or hard of hearing, while 20% of hard of hearing victims experience abuse at the hands of hearing offenders (Table 10).

Table 10. *Cross Tabulation of Victims' and Offenders' Auditory Status*

			Respondent Auditory Status				**Chi-Square**
			Hearing	**Deaf**	**Hard of Hearing**	**Total**	**(2-sided)**
Offender's auditory status	Hearing	Count	73	11	13	97	.000
		Percent within offenders' auditory status	75.3%	11.3%	13.4%	100.0%	
	Deaf	Count	0	47	14	61	
		Percent within offenders' auditory status	0.0%	77.0%	23.0%	100.0%	
	Hard of Hearing	Count	2	4	4	10	
		Percent within offenders' auditory status	20.0%	40.0%	40.0%	100.0%	
Total		Count	75	62	32	169	
		Offenders' auditory status	44.4%	36.7%	18.9%	100.0%	

Table 11 details whether a child witnessed parental abuse by auditory status. Over 63% of hearing respondents reported they had witnessed parental abuse as a child, while over 50% of Deaf and over 57% of hard of hearing had been a child witness of parental abuse. There was not statistical significance between auditory status and witnessing parental abuse as a child (Chi-Square .175).

Table 12 summarizes the experiences of child maltreatment by auditory status. Among hearing respondents 45.3% reported being victims of child maltreatment while 24.4% of Deaf respondents and 34.4% of hard of hearing

respondents reported being victims of child maltreatment. Auditory status does achieve statistical significance (Chi-Square .004) indicating there is a difference between hearing, Deaf, and hard of hearing individuals who have experienced child maltreatment.

Table 11. *Cross Tabulation of Auditory Status by Witnessing Parental Abuse as a Child*

			Child Witness Parental Abuse		Total	Chi-Square
			No	Yes		(2-sided)
Respondent Auditory Status	Hearing	Count	42	73	115	.175
		% Within Respondent Auditory Status	36.5%	63.5%	100.0%	
	Deaf	Count	45	46	91	
		% Within Respondent Auditory Status	49.5%	50.5%	100.0%	
	Hard of Hearing	Count	17	23	40	
		% Within Respondent Auditory Status	42.5%	57.5%	100.0%	
Total		Count	104	142	246	
		% Within Respondent Auditory Status	42.3%	57.7%	100.0%	

Table 12. *Auditory Status by Child Maltreatment*

			Child Maltreatment			Chi-Square
			No	Yes	Total	(2-sided)
Respondent Auditory Status	Hearing	Count	63	52	115	.004
		% within Respondent Auditory Status	54.8%	45.2%	100.0%	
	Deaf	Count	68	22	90	
		% within Respondent Auditory Status	75.6%	24.4%	100.0%	
	Hard of Hearing	Count	29	10	39	
		% within Respondent Auditory Status	74.4%	25.6%	100.0%	
Total		Count	160	84	244	
		% within Respondent Auditory Status	65.6%	34.4%	100.0%	

A binomial regression analysis that included child witness, auditory status, gender, and race found that only witnessing parental abuse as a child was statistically significant for being an adult victim of psychological abuse. Individuals who witnessed parental abuse as a child were over nine times as likely as those who had not witnessed parental abuse to become victims of psychological

abuse as an adult (Table 13).

Table 13. *Binomial Regression Analysis of Auditory Status and Witnessing Parental Abuse as a Child and Becoming a Victim of Psychological Abuse as an Adult*

		B	S.E.	Wald	df	Sig.	Exp(B)
	Child witness	2.240	.303	54.587	1	.000	9.389
	Constant	-1.179	.233	25.496	1	.000	.308
a. Variable(s) entered on step 1: child witness, auditory status, gender, and race/ethnicity.							

Table 14 details a binomial regression analysis that examines the effects of witnessing parental abuse as a child and becoming a victim of physical abuse as an adult. The findings indicate that being a child witness increasing the odds of experiencing physical abuse as an adult by 4.663 times. The odds are nearly doubled for women and over 2 ½ times as much for a member of a racial or ethnic minority.

Table 14. *Binomial Regression Analysis of Auditory Status and Witnessing Parental Abuse as a Child and Becoming a Victim of Physical Abuse as an Adult*

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 2[a]	Child witness	1.540	.309	24.746	1	.000	4.663
	Gender	.784	.297	6.948	1	.008	2.190
	Race/Ethnic	.959	.295	10.595	1	.001	2.610
	Constant	-2.126	.343	38.452	1	.000	.119
a. Variable(s) entered on step 1: child witness, auditory status, gender, and race/ethnicity.							

Table 15 illustrates the relationship between being a victim of child maltreatment and becoming an adult victim of psychological abuse. The findings indicate that those who were victims of child maltreatment were 1.857 times as likely to become a victim of psychological abuse and women were 1.695 as likely to become victims of psychological abuse.

Table 15. *Binomial Regression Psychological Abuse and Child Maltreatment*

		B	S.E.	Wald	df	Sig.	Exp(B)
	Gender	.527	.269	3.849	1	.050	1.695
	Child Maltreatment	.619	.284	4.751	1	.029	1.857
	Constant	-.405	.211	3.678	1	.055	.667
a. Variable(s) entered on step 1: Auditory Status, Gender, Race/Ethnicity, Child Maltreatment							

Table 16 details the results of a binomial regression analysis exploring the effects of being a victim of child maltreatment and the chances of becoming adult victims of physical abuse. The findings indicate that the odds of becoming an adult victim of physical abuse are nearly doubled for women, racial and ethnic minorities and those who were victims of child maltreatment.

Table 16. *Binomial Regression Child Maltreatment and Physical Abuse as an Adult*

		B	S.E.	Wald	df	Sig.	Exp(B)
	Gender	.737	.287	6.599	1	.010	2.089
	Race/Ethnicity	.922	.281	10.721	1	.001	2.513
	Child Maltreatment	.746	.294	6.414	1	.011	2.108
	Constant	-1.409	.267	27.760	1	.000	.244
a. Variable(s) entered on step 1: Auditory Status, Gender, Race/Ethnicity, Child Maltreatment							

Discussion

Overall, the rate of psychological abuse in the current sample was very high. More than 59% of the sample reported such abuse. This is comparable with prevalence rates of partner victimization reported by college students as reported in previous studies (Black et al. 2010, Harned 2002, Hines and Saudino 2003). The prevalence of physical violence in the current study is also consistent with prevalence rates in previous studies (Black et al. 2010, Cogan and Ballinger 2006, Hines and Saudino 2003).

The first purpose of this study was to examine the extent of intimate partner violence victimization and among a sample of hearing, Deaf, and hard of hearing male and female college students and whether these experiences varied by auditory status. Previous research indicates higher rates of partner violence victimization for Deaf and hard of hearing individuals than those who are hearing (Anderson and Leigh 2011, Porter et al. 2011a, 2011b). These results were not found in the current study. Rather, no significant differences were observed for psychological abuse or physical abuse among Deaf, hard of hearing, and hearing college students. Although there were no significant differences in being abused by auditory status, the dyad for abuse and auditory status indicated that abuse for hearing and Deaf victims is mostly intra-auditory status. However, this does not hold true for hard of hearing victims whereby 60 percent of their perpetrators were either Deaf or hearing. Barrow (2008) suggests that because hard of hearing individuals are often members of both Deaf culture and mainstream (hearing) culture, this places them at a differing risk of abuse than those who are Deaf or hearing. Along these lines, as Anderson et al. (2011) acknowledges, within the dynamics of the relationships that include one hearing partner and a hard of hearing partner, there lays the potential for the hearing partner to abuse their hearing privilege. This may include the perpetrator using their hearing to manipulate the victim (not share with him or her is being said) and/or communicating with police officers and others because they are hearing (Deaf Hope 2006). This suggests the need for more directed research, including qualitative studies, on victimization and factors that contribute to victimization on college campuses.

The second purpose of this study was to examine whether risk factors, in addition to disability, increase the risk of IPV victimization. Compared to hearing students, Deaf and hard of hearing students were significantly more likely to have witnessed parental abuse and experience child abuse than hearing students.

However, findings did not indicate that auditory status was statistically significant and different for hearing, Deaf, or hard of hearing for witnessing parental abuse or being the victim of child maltreatment and becoming an adult victim of psychological or physical abuse. The current findings are unexpected given the expansive research on the role of witnessing violence in the family of origin and physical child abuse on subsequent partner violence (Coffey et al. 1996, Foshee et al. 2004, Gover et al. 2011, Jankowski et al. 1999, Marshall and Rose 1988 O'Keefe 2005, Simons et al. 1998). This suggests the need to investigate factors beyond those relied upon with hearing college samples to understand the dynamics of partner violence victimization among Deaf and hard of hearing college students.

Although the current study extends our understanding of the correlates of partner victimization, findings should be viewed with caution in light of several limitations. First, data were obtained by self-report. Thus, the possibility of deliberate response distortion must be considered. Second, present findings may not generalize beyond the particular sample. We note our sample consisted of a small number of Deaf and hard of hearing college men and women who may differ from other groups in their experiences of psychological and physical abuse. The study does, however, provide evidence for future comparisons. Third, the cross-sectional design of this investigation does not allow causal inferences to be made as the temporal order of variables. Future research is also needed concerning specific episodes of psychological and physical abuse to learn more about the dynamics of such abuse.

Finally, substantiation of the present findings, which indicate that partner abuse occurs with frequency among hearing, Deaf and hard of hearing college students, and that most traditional risk factors for partner violence among hearing college samples are not significant when examined for Deaf and hard of hearing students, is crucial for the dissemination of educational information. The findings presented here reiterate the need for a continued focus on risk factors for partner violence, both in terms of victimization and to address and prevent further instances of partner violence.

References

Anderson ML (2010) *Prevalence and Predictors of Intimate Partner Violence Victimization in the Deaf Community*. Unpublished Doctoral Dissertation, Gallaudet University, Washington, D.C.

Anderson ML, Leigh IW (2011) Intimate Partner Violence against Deaf Female College Students. *Violence against Women* 17(7): 822-834. http://doi:10.1177/1077801211412544.

Anderson ML, Leigh IW, Samar VJ (2011) Intimate Partner Violence against Deaf Women: A Review. *Aggression and Violent Behavior* 16(3): 200-206. http://doi.org/10.1016/j.avb.2011.02.006.

Anderson ML, Kobek Pezzarossi CM (2013) Violence against Deaf Women: Effect of Partner Hearing Status. *The Journal of Deaf Studies and Deaf Education* 19(3): 411-421. http://doi:10.1093/deafed/ent053.

Barrow LB (2008) *Criminal Victimization of the Deaf*. New York, NY: LFB Scholarly Publishing.

Black DS, Sussman S, Unger JB (2010) A Further Look at the Intergenerational Transmission of Violence: Witnessing Interparental Violence in Emerging Adulthood. *Journal of Interpersonal Violence* 25(6): 1022–1042. http://doi:10.1177/0886260509340539.

Brownridge DA (2006) Partner Violence against Women with Disabilities. *Violence against Women* 12: 805-822. http://doi:10.1177/107780120629268.

Busby DM, Holman TB, Walker E (2008) Pathways to Relationship Aggression between Adult Partners. *Family Relations* 57 (January): 72-83. http://doi:10.1111/j.1741-3729.2007.00484.x.

Cappell C, Heiner RB (1990) The Intergenerational Transmission of Family Aggression. *Journal of Family Violence* 5(2): 135-152. http://doi.org/10.1007/BF00978516.

Carr JL, VanDeuse KM (2002) The Relationship between Family of Origin Violence and Dating Violence in College Men. *Journal of Interpersonal Violence* 17(6): 630-646. http://doi/10.1177/0886260502017006003.

Cercone JJ, Beach SR, Arias I (2005) Gender Symmetry in Dating Intimate Partner Violence: Does Similar Behavior Imply Similar Constructs? *Violence and Victims* 20(2): 207-218.

Chan KL, Straus MA, Brownridge DA, Tiwari A, Leung WC (2008) Prevalence of Dating Partner Violence and Suicidal Ideation among Male and Female University Students Worldwide. *Journal of Midwifery & Women's Health* 53: 529-537. http://doi:10.1016/j.jmwh.2008.04.016.

Chen PH, White H (2004) Gender Differences in Adolescent and Young Adult Predictors of Later Intimate Partner Violence. *Violence against Women* 10(11): 1283-1301. http://doi:10.1177/107780120426900.

Coffey P, Leitenberg H, Henning K, Bennett RT, Jankowski MK (1996) Dating violence: The association between methods of coping and women's psychological adjustment. *Violence and Victims* 11(3): 227-238.

Cogan R, Ballinger BC (2006) Alcohol Problems and the Differentiation of Partner, Stranger, and General Violence. *Journal of Interpersonal Violence* 21(7), 924-953. http://doi:10.1177/088626050628917.

Cyr M, McDuff P, Wright J (2006) Prevalence and Predictors of Dating Violence among Adolescent Female Victims of Child Sexual Abuse. *Journal of Interpersonal Violence* 21(8): 1000-1017. http://doi:10.1177/088626050629020.

Deaf Hope (2006) *Deaf Power and Control Wheel*. Retrieved from https://bit.ly/2N2XLfX.

Dye ML, Eckhardt CI (2000) Anger, Irrational Beliefs, and Dysfunctional Attitudes in Violent Dating Relationships. *Violence and Victims* 15(3): 337–350.

Edwards KM, Sylaska KM, Barry JE, Moynihan MM, Banyard VL, Cohn ES, Walsh WA, Ward SK (2015) Physical Dating Violence, Sexual Violence, and Unwanted Pursuit Victimization: A Comparison of Incidence Rates among Sexual-minority and Heterosexual College Students. *Journal of Interpersonal Violence* 30(4): 580-600. http://doi:10.1177/0886260514535260.

Fass DF, Benson RI, Leggett DG (2008) Assessing Prevalence and Awareness of Violent Behaviors in the Intimate Partner Relationships of College Students using Internet Sampling. *Journal of College Student Psychotherapy* 22(4): 66–75. https://doi.org/10.1080/87568220801952248.

Fergusson DM, Boden JM, Horwood LJ (2006) Examining the Intergenerational Transmission of Violence in New Zealand Birth Cohort. *Child Abuse & Neglect* 30: 89-108. http://doi.org/10.1016/j.chiabu.2005.10.006.

Forke CM, Myers RK, Catallozzi M, Schwartz DF (2008) Relationship Violence among Women and Male College Undergraduate Students. *Archives of Pediatrics*

& Adolescent Medicine 162(7): 634-641. http://doi:10.1001/archpedi.162.7.634.

Foshee VA, Benefield TS, Ennett ST, Bauman KE, Suchindean C (2004) Longitudinal Predictors of Severe Physical and Sexual Dating Violence Victimization during Adolescence. *Preventive Medicine: An International Journal Devoted to Practice and Theory* 39(5): 1007-1016. http://doi:10.1016/j.ypmed.2004.04.014.

Foshee VA, Ennett ST, Bauman T, Benefield T, Suchindra C (2005) The Association between Family Violence and Adolescent Dating Violence Onset: Does it vary by Race, Socioeconomic Status, and Family Structure? *Journal of Early Adolescence* 25(3): 317-344. http://doi:10.1177/027243160527730.

Gomez AM (2011) Testing the Cycle of Violence Hypothesis: Child Abuse and Adolescent Dating Violence as Predictors of Intimate Partner Violence in Adulthood. *Youth & Society* 43(1): 171-192. http://doi:10.1177/0044118X09358313.

Gover A, Kaukinen C, Fox KA (2008) The Relationship between Violence in the Family of Origin and Dating Violence among College Students. *Journal of Interpersonal Violence* 23(12): 1667-1693. http://doi:10.1177/088626050831433.

Gover A, Park M, Tomsich EA, Jennings W (2011) Dating Violence Perpetration and Victimization among South Korean College Students: A Focus on Gender and Childhood Maltreatment. *Journal of Interpersonal Violence* 26(6): 1232-1263. http://doi:10.1177/0886260510368161.

Harned MS (2001) Abused Women or Abused Men? An Examination of the Context and Outcomes of Dating Violence. *Violence and Victims* 16(3): 269-285.

Hines DA, Saudino KJ (2003) Gender Differences in Psychological, Physical, and Sexual Aggression among College Students using the Revised Conflict Tactics Scales. *Violence and Victims* 18(2): 197-217.

Holt J, Gillespie W (2008) Intergenerational Transmission of Violence, Threatened Egoism, and Reciprocity: A test of multiple Psychosocial Factors Affecting Intimate Partner Violence. *American Journal of Criminal Justice* 33(2): 252-266. http://doi:10.1007/s12103-008-9036-0.

Jankowski MK, Leitenberg H, Henning KR, Coffey P (1999) Intergenerational Transmission of Dating Aggression as a Function of Witnessing only Same Sex Parents vs. Opposite Sex Parents vs. both Parents as Perpetrators of Domestic Violence. *Journal of Family Violence* 14(3): 267-279. http://doi:10.1023/A:10228144 1666610.

Jennings WG, Park M, Tomisich EA, Gover AR, Akers RL (2011) Assessing the Overlap in Dating Violence Perpetration and Victimization among South Korean College Students: The Influence of Social Learning and Self-control. *American Journal of Criminal Justice* 36(2): 188–206. http://doi:10.1007/s12103-011-9110-x.

Johnston-McCabe P, Levi-Minzi M, Van Hassely VB, Vanderbeek A (2011) Domestic Violence and Clinical Support in a Clinical Sample of Deaf and Hard of Hearing Women. *Journal of Family Violence* 26(1): 63-69. https://doi.org/10.1007/s10896-010-9342-4.

Kwong MJ, Bartholomew K, Henderson AJZ, Trinke SJ (2003) The Intergenerational Transmission of Relationship Violence. *Journal of Family Psychology* 17(3): 288-301. http://doi:10.1037/0893-3200.17.3.288.

Langhinrichsen-Rohling J, Hankla M, Stromberg CD (2004) The Relationship Behavior Networks of Young Adults: A Test of the Intergenerational Transmission of Violence Hypothesis. *Journal of Family Violence* 19(3): 139–151. http://doi.org/10.1023/B:JOFV.0000028074.35688.4f.

Lavoie F, Herbert M, Tremblay R, Vitaro F, Vezina L, McDuff P (2002) History of Family Dysfunction and Perpetration of Dating Violence by Adolescent Boys: A Longitudinal Study. *Journal of Adolescent Health* 30(5): 375-383. http://doi.org/10.

1016/S1054-139X(02)00347-6.
Maas CD, Fleming CB, Herrenkohl TI, Catalano RF (2010) Childhood Predictors of Teen Dating Violence Victimization. *Violence and Victims* 25(2): 131-149.
Makepeace JM (1987) Social Factors and Victim Offender Differences in Courtship Violence. *Family Relations* 36(1): 87-91.
Millett L, Kohl P, Jonson-Reid M, Drake B, Petra M (2013) Child Maltreatment Victimization and Subsequent Perpetration of Young Adult Intimate Partner Violence: An Exploration of Mediating Factors. *Child Maltreatment* 18(2): 71-84. http://doi:10. 1177/107755957348482.
Murrell AR, Christoff KA, Henning KR (2007) Characteristics of Domestic Violence Offenders: Associations with Exposure to Violence. *Journal of Family Violence* 22(7): 523-532. http://doi:10.1007/s10896-007-9100-4.
O'Keefe M (2005) *Teen Dating Violence: A Review of risk Factors and Prevention Efforts*. Violence against Women/National Resource Center on Domestic Violence. Retrieved from https://bit.ly/2C3BV7K.
Orcutt HK, Garcia M, Pickett SM (2005) Female-perpetrated Intimate Partner Violence and Romantic Attachment Style in a College Student Sample. *Violence and Victims* 20(3): 287-302. http://doi.10.1891/088667005780997938.
Perry AR, Fromuth ME (2005) Courtship Violence using Couple Data: Characteristics and Perceptions. *Journal of Interpersonal Violence* 20(3): 1078-1095. http://doi:10.1177/0886260505278106.
Porter JL, McQuiller Williams L (2011a) Auditory Status and Experiences of Abuse among College Students. *Violence and Victims* 26(6): 788-798. http://doi:10.1891/0886-6708.26.6.788.
Porter JL, McQuiller Williams L (2011b) Intimate Violence among Underrepresented Groups on a College Campus. *Journal of Interpersonal Violence* 26(16): 3210-3224. http://doi:10.1177/0886260510393011.
National Coalition against Domestic Violence (NCADV) (2016) *National Statistics.* Retrieved from http://www.ncadv.org/learn/statistics.
Riggs DS, Caulfield MB, Fair K (2009) Risk of Intimate Partner Violence: Factors associated with Perpetration and Victimization. In PM Kleespies (ed), *Behavioral Emergencies: An Evidence-based Resource for Evaluating and Managing Risk of Suicide, Violence, and Victimization*, 189-208. Washington, DC: American Psychological Association.
Stith SM, Rosen KH, Middleton KA, Busch AL, Lundeberg K, Carlton RP (2000) The Intergenerational Transmission of Spouse Abuse: A Meta-analysis. *Journal of Marriage and Family* 62(August): 640-654. http://doi:10.1111/j.1741-3737.2000.00640.x.
White HR, Widom CS (2003) Does Childhood Victimization Increase the Risk of Early Death? A 25-year Prospective Study. *Child Abuse & Neglect* 27(7): 841-853. http://dx. doi.org/10.1016/S0145-2134(03)00110-8.
World Health Organization (2012) Global Campaign for Violence Prevention. *Violence Prevention Alliance.* Retrieved from https://bit.ly/2MHgK00.