

Loneliness of Homosexual Male Students: Parental Bonding Attitude as a Moderating Factor

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Abstract. The purpose of this paper was to examine the relationships of homosexual male students at the senior high school level and their loneliness using parental bonding attitude as a moderating factor. An amount of 127 homosexual male senior high school students in Taiwan is studied. The Pearson correlation analysis and the hierarchical regression analysis are adapted to examine two proposed hypotheses. Based on the results, homosexual male senior high school students in both hyper-masculine and feminine gender roles are found to feel loneliness, but levels of loneliness of those who possess hyper-masculine gender role are relatively lower than those in a feminine role. In addition, the levels of loneliness of homosexual male senior high school students could be negatively affected by parental bonding attitudes (Care). Recommendations and suggestions for parents as well as teachers of homosexual senior high school male students and future studies are underscored at the end of this article.

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In Asian countries such as Taiwan, reticence and introversion are found cultural traits that greatly influence social isolation (Chen & Chen, 2012). As a result, a social gap between people has always existed. It is hence not surprising that loneliness is a comprehensive social problem and a critical topic within psychological disciplines (Bradburn, 1969; Chen, 2011; Jones, Hansson, & Cutrona, 1984; Ma & Chen, 2010; Peplau & Perlman, 1982).

The optimal way to reduce social isolation is by focusing on parental rearing styles, which we call parental bonding attitude. Parental bonding attitude has been found to play a deep role in one's loneliness (Bowlby, 1969; Chambers, Power, Loucks, & Swanson, 2000; Hojat & Vogel, 1989). The warmer, closer, and the more affectionate the parental bonding attitude, the less lonely the child feels and vice versa (Rubenstein & Shaver, 1982). Once loneliness has occurred due to low care and high protection, one may develop several negative personality traits (e.g., low self-esteem, loneliness, and melancholy) (de Man, Labreche-Gauthier, & Leduc, 1993; Parker, 1979).

Though studies on loneliness and parental bonding are increasing in number, their major emphasis tends to be on majority groups (i.e., heterosexuals) (Rubenstein, Shaver, & Peplau, 1979). Studies on homosexuals have been neglected. Although sexual tolerance is increasing

and the view that homosexuality as an illness is declining, discrimination against homosexual men still exists and will be hard to eliminate. Since issues for homosexual women might be quite different from the issues confronting homosexual men (Etringer, Hillerbrand, & Hetherington, 1990), these two populations should be studied separately (Chung & Harmon, 1994). This paper focuses only on homosexual men.

Homosexual men have found difficulty during the job-search (Chung & Harmon, 1994) and career decision-making processes due to a variety of environmental and personal factors (Hetherington, 1991). Some researchers have found that there is a high level of career-choice uncertainty and dissatisfaction among homosexual men, which can subject them to depression for much of their lives (Etringer et al., 1990). Homosexual men typically lack social support (Chadwick, Liao, & Boyle, 2005). There are a number of academic disciplines that maintain that even if physical differences of homosexual and heterosexual men are not fully understood, poor psychosocial outcomes are generally assumed (Rekers, 1992).

Living in today's heterosexual society, most homosexuals undoubtedly endure lower social status and regular insults from heterosexual members of society, which leads them to live unsafe, high-pressure, and difficult lifestyles (Meyer, 1995) and remain isolated from other people. This negative phenomenon occurs with an especially high frequency during adolescence. In specific, children from junior high school to senior high school are particularly intolerant of homosexuals (Alfieri, Ruble, & Higgins, 1996; Sigelman, Miller, &

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Whitworth, 1986). Homosexual students within this age range have confirmed being rejected, isolated, and attacked at school (Bai, 2009), which renders them relatively high lonely in society. In light of this information, combining theories about the loneliness of homosexual students and the impact of parental bonding attitude is believed to be the optimal way of improving the circumstances that homosexual students experience and minimizing the isolation suffered by these students in a fair and profound manner.

Parental bonding attitude

The understanding of parental bonding attitude was derived from an evolutionary perspective as both a reflection of the attachment behavioral system and as a set of evolved psychological strategies designed to maximize the inclusive fitness of both parent and child (Riskind et al., 2004). Psychological research has found a strong relationship between parental bonding attitude and mood, anxiety, substance use disorders (Enns, Cox, & Clara, 2002; Kendler, Myers, & Prescott, 2000), and other psychological symptoms (Blatt & Homann, 1992; Bennet & Stirling, 1998; Riskind et al., 2004).

There are numerous ways to characterize parental bonding attitudes, most of which rely on the viewpoints of various researchers. Generally, researchers depict parental bonding attitudes using either unilateral, bilateral, or multilateral frameworks. For the first framework, the researcher lists different facets of bonding attitude and classifies the bonding attitude of both parents into one classification (Baldwin, Kalhoun, & Breese, 1945; Baumrind, 1991). In the second framework, parental bonding attitudes are depicted in two different dimensions (i.e., Care and Overprotection). Parent bonding attitudes can be illustrated on a y-axis and x-axis along a four-quadrant graph, with the two dimensions divided into high and low (Bronfenbrenner, 1961; Baumrind, 1980; Fisher, Fagot, & Leve, 1998; Maccoby & Martin, 1983; Parker et al., 1979; Williams, 1958). Although the third framework for depicting parental bonding attitude exists, excessive complexity has caused it to be utilized rarely in present studies. In sum, parental bonding attitude is a multi-faceted construct that could well provide retrospective understanding of the extent to which parents provide nurturance and affection and create an appropriate sense of safety and security (Parker, 1983; Riskind et al., 2004). Hence, this paper adopts the second framework as the context for analyzing parental bonding attitude. Because overprotection relates to being controlled and has been found to be a key factor leading to high levels of loneliness (Chen, 2011; de Man et al., 1993; Parker et al., 1979), only Care is used in this study.

Loneliness

Loneliness describes an unpleasant and strong experience related to the inability to satisfy the interpersonal need for intimacy (Sullivan, 1953), although it can be considered a common experience in most people's life (Perlman & Peplau, 1981). Loneliness has three basic characteristics (Perlman & Peplau, 1981). First, loneliness results from deficiencies in the person's social relations. Second, loneliness is a subjective phenomenon. It is not necessarily synonymous with objective isolation, as people can be alone without being lonely. Third, loneliness is an unpleasant and distressing experience (Sullivan, 1953).

Loneliness can affect a person's thinking, emotions, and behavior. Loneliness may affect a person's faith regarding the relationship between him or herself and other people. At several stages in a person's life, loneliness can be related to low self-esteem (Fordham, Hinde, & Shyness, 1999; Hymel, Rubin, Rowden, & LeMare, 1990; Kirova-Petrova, 2000; Larson, 1999; McWhirter, 1997; McWhirter, McWhirter, Besett-Alesch, & Gat, 2002; Olmstead, O'Malley, & Bentler, 1991; Prinstein & La Greca, 2004) and self-deprecation (Rubenstein & Shaver, 1982), making one feel isolated, hostile, and unwilling to get along well with others. Loneliness leads to several negative emotions (e.g., despair, frustration, helplessness, weakness, fright, difficulty, sadness, gloom, and sullenness) (Rokach, 1990; Rokach & Brock, 1997; Rubenstein & Shaver, 1982). Thus, it is rational that one might feel a lack of belonging and understanding, a sense of rejection, and a lack of contact with the outside world due to an increased feeling of loneliness (Rokach, 1990). Loneliness also makes one less courageous, less willing to express their feelings comprehensively, deficient at socializing, selfish, isolated, and more likely to experience uneasy or anxious feelings while in the presence of others. Although ways of measuring loneliness vary (Ditomaso & Spinner, 1993; DiTommaso, Brannen, & Best, 2004; Russell et al., 1978, 1984; Vincenzi & Grabosky, 1987; Wittenberg & Reis, 1986;), rarely do studies take cultural effects (Rokach & Neto, 2002) into account. One of the few exceptions is an undergraduate loneliness inventory developed by Ma and Chen in 2010, which focuses on Asian students (Ma & Chen, 2010) and is thus adequately to be used in this study.

Homosexuality

A substantial number of people may still find homosexuality to be threatening and aberrant behavior (Hughes, 1997). Although today's society strongly advocates for same-sex attraction not being an illness but an acceptable phenomenon, discrimination still exists. Most homosexual men experience lower social

status and insults from heterosexual members of society, which lead them to live unsafe, high-pressure, and difficult lifestyles (Meyer, 1995). Similarly, the majority of homosexual men has been exposed to discrimination and has suffered as victims of physical and verbal abuse by both co-workers and strangers (Hershberger & D'Augelli, 1995; Krieger & Sidney, 1997). It is not surprising that depression among homosexual men is nearly three times greater than depression among heterosexual men (Mills et al., 2004).

The traits one exhibits are known as a person's gender role identity (Bem, 1981; Chung & Harmon, 1994). Basically, in heterosexual case, those who behave in a feminine manner may display less interest in physically active pursuits than those who do not (Zucker & Bradley, 1995). Similarly, feminine homosexual men have reported to feel powerless to prevent others from evaluating them as abnormal and feminine (Chadwick et al., 2005) and that they are more susceptible to neuroticism and introversion (Lung & Shu, 2007). Although mental disorders are not as common among hyper-masculine homosexual men as they are among their feminine counterparts due to their competitive and dominant mindset (Fitzpatrick, Euton, Jones, & Schmidt, 2005), they may still suffer from loneliness due to intolerance for open homosexual self-expression in modern society (Chadwick et al., 2005).

No matter what gender role each homosexual man possesses, their relationships with their parents have a great impact on both their emotional state and mental health (Bai, 2009; Hirshfeld, Biederman, Brody, Faraone, & Rosenbaum, 1997). However, past studies rarely take the gender role possessed by the homosexual male into account. Hence, the different degrees of loneliness suffered by hyper-masculine and feminine homosexual men are examined by this study. In addition, children at the junior high to senior high level can be particularly intolerant of homosexuals (Alfieri et al., 1996; Sigelman et al., 1986), especially at the senior high level, where male students frequently experience high rates of aggression. This paper makes the claim that homosexual male senior high school students suffer exponentially more than others do and that their levels of loneliness are the relative high among the rest of age groups. However, studies researching solutions to this problem are rare. Therefore, this paper aims to examine the relationships between the types of homosexual male senior high school students (i.e., hyper-masculine and feminine) and their loneliness and to explore parental bonding attitude (i.e., Care) as a moderating factor. This paper could contribute to the study of educational psychology, the psychology of sex, the senior high school system, and the Asian society. Based on the literature review, two hypotheses are proposed:

- H1. Homosexual male senior high school students in a hyper-masculine role feel loneliness, but their levels of loneliness are relatively lower than those in a feminine role, and vice versa.
- H2. The levels of loneliness of homosexual male senior high school students could be negatively affected by parental bonding attitudes.

Method

Sample and procedure

This paper investigates the link between the types of homosexual male senior high school students and their loneliness with parental bonding attitude as a moderating factor. The three proposed hypotheses were tested with a group of male senior high school students from randomly selected senior high schools in northern Taiwan. To avoid common method bias, all respondents were invited independently and from different senior high schools equally. After learning the survey was about male homosexuality, 153 male senior high school students who agreed to take part in the observation received a questionnaire enquiring about gender role identity, loneliness, and parental bonding attitude as well as on covariates. Participation was voluntary for all respondents. To eliminate possible biases arising due to private and psychological uncertainties and concerns while answering the questionnaire, respondent confidentiality was assured. After 26 questionnaires were discarded for statistical reasons, the overall response rate was 83%, with 127 questionnaires used for final analysis. Of the 127 respondents, 61% were in their third year, 24% were in their second year, and 15% were in their first year. All respondents lived with both parents.

Measures

The aim of this study is to exam the relationships of homosexual male students at the senior high school level and their loneliness using parental bonding attitude as a moderating factor. A set of questionnaire comprising four measures (i.e., parental bonding attitude, gender role identity, loneliness, and covariates) is developed. *Parental bonding attitude* was appraised using items under the Care dimension, based on a parental version constructed by Parker et al. (1979). Every item used a 6-point scale (1 = *very suitable*, 6 = *not suitable at all*).

Gender role identity was measured using the Bem Sex Role Inventory (BSRI) developed by Bem (1981). Every item used a 7-point scale (1 = *never or almost never true*, 7 = *almost always true*). Noteworthy is that as mentioned previously, most of inventories regarding loneliness do not consider the culture effect. However,

the latest inventory that majorly focuses on Asia students fits the target sample of this study. Though the inventory was initially based on students in higher education, by extrapolating Perlman and Peplau's findings in 1981, we can infer that Ma and Chen's inventory could also be used within the context of senior high students.

This paper hence use Ma & Chen's inventory as the tool for measuring *Loneliness*. Every item used a 6-point scale (1 = *disagree*, 6 = *very agree*). Except *Loneliness*, the rest inventories have widely been used in several studies and their reliabilities and validities are also verified (Canetti, Bachar, Galili-Weisstub, De-Nour, & Shale, 1997; Holt & Ellis, 1998; Patrice, 1977). Although the inventory of loneliness used in this study is relatively new, due to its emphasis of taking cultural effect into consideration, the content validity on this study can be assumed.

Lastly, to control for the possibility that demographic differences in the predictor and outcome variables may result in spurious relationships, year of study (1 = *1st year*, 2 = *2nd year*, 3 = *3rd year*) and living status (1 = *with Parents*, 2 = *with Father*, 3 = *with Mother*) were entered as covariates.

Results

Three measures, namely gender role identity, loneliness, and parental bonding attitude, were initially analyzed using exploratory factor analysis and principal components analysis with a varimax rotation method to increase the discriminate validity of the evaluation.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy calculated .793 ($\chi^2 = 588.873$; $p < .001$) for gender role identity. The original factors were extracted into three measures. Due to only two factors in the last measure, the last measure was deleted after examined for its reliability. The two new measures were renamed based on Bem (1981), Hyper-masculine and Feminine. Hyper-masculine emerged with an eigenvalue of 1.604, accounting for 39.051%

of the explained variance, and feminine had an eigenvalue of 1.503, accounting for 38.638% of the explained variance. The 77.690% accumulated explained variance was calculated for the measure of gender role identity. The KMO measure of sampling adequacy was .639 ($\chi^2 = 104.767$; $p < .001$) for loneliness. The original factor remains the same, with an eigenvalue of 2.017, accounting for 67.233% of the explained variance. The KMO measure of sampling adequacy was .605 ($\chi^2 = 213.775$; $p < .001$) for parental bonding attitude. The original factor remains the same with an eigenvalue of 2.011, accounting for 78.512% of the explained variance. These results verified the construct validity of this study.

To confirm the reliability of this study, Cronbach's α of the classification of each measure, gender role identity (e.g., Hyper-masculine, $\alpha = .774$; Feminine, $\alpha = .807$), loneliness ($\alpha = .750$), and parental bonding attitude ($\alpha = .883$), were conducted. The Cronbach's alpha for each measure fell in the range of .750 to .883 ($> .600$). The Cronbach's alpha of all measures was .810 ($> .700$), verifying the reliability of this study.

In Table 1, the Pearson correlations for measured variables are presented. As predicted for H1, gender role identity is positively correlated to loneliness, whereas Hyper-masculine has a lower coefficient ($r = .045$, $p < .05$), and Feminine has a higher coefficient ($r = .160$, $p < .01$). Additionally, parental bonding attitudes ($r = -.354$, $p < .001$) were negatively correlated to loneliness. According to the results, homosexual male senior high school students who are in a hyper-masculine role feel lonely, but the level of loneliness is relatively lower than that of those who are in a feminine role.

Hierarchical regression analysis was applied to explore independent and interactive effects of gender role identity and parental bonding attitude on loneliness for the examination of H2. Based on Janssen's theory (Janssen, 2005), standardized independent predictors were applied to eliminate possible multicollinearity problems and to improve interpretation.

Table 1. Pearson correlations among the variables (N = 127)

Variables	1	2	3	4	5
Covariates					
1. Year of study					
2. Living status	–				
Gender role identity					
3. Hyper-masculine	–.257	–			
4. Feminine	.276	–	–.602***		
5. Parental bonding attitude (Care)	–.304	–	.350*	.308*	
6. Loneliness	.169	–	.045*	.160**	–.354***

* $p < .05$; ** $p < .01$; *** $p < .001$.

The results are provided in Table 2. The variables were entered into the regression equation in three models. Covariates were first entered in Model 1. The gender role identity (RI) and parental bonding attitude (PB) were then introduced in Model 2. Lastly, the interaction effects of RI and PB on L were entered in Model 3. As observed in Table 2, most of the variables were highly significant (***: $p < .001$). Specifically and importantly, gender role identity ($\beta = .153$, $p < .05$) was positively related to loneliness. However, parental bonding attitude ($\beta = -.712$, $p < .001$) was negatively related to loneliness. Note that the main effects were impacted by the interaction effect. The results indicate that the parental bonding attitude that parents adopt could successfully facilitate the loneliness of homosexual male senior high school students ($\beta = -.571$, $p < .001$).

Discussion

In Asian countries, loneliness is a serious problem due to culture effects (Chen & Chen, 2010), and research has shown that a way to improve this phenomenon is to emphasize parental bonding attitudes (Chambers et al., 2000; Hojat & Vogel, 1989). The majority of studies in this area have looked at emphasizing parental bonding attitudes on the general population of heterosexuals rather than homosexuals (Rubenstein et al., 1979). Children from junior high school to senior high school are particularly intolerant of homosexuals (Alfieri et al., 1996; Sigelman et al., 1986), more than at any other age, and loneliness of homosexual students is assumed to be higher than heterosexual students.

Results from this study contribute to the literature by applying the integrated knowledge of educational psychology and psychology of sex to children at the

senior high level. The paper contributes to the discussion of the relationship between the gender role identity (i.e., Hyper-masculine and Feminine) of homosexual male senior high school students and their loneliness and how parental bonding attitudes (i.e., care) may mitigate feelings of loneliness.

The research results revealed that homosexual male senior high school students' role identities were positively associated with their loneliness and that their loneliness can be impacted by their parents' parental bonding attitude. That is, loneliness of homosexual male senior high school students could be significantly diminished if their parents adopted Care as a tool.

This paper notes that past educational psychology research on loneliness and parental bonding attitude recommended practices specific to the general population of heterosexuals. Though these practices and recommendations are indeed helpful, few have analyzed the minority population of homosexuals, discussed their loneliness status and explored adequate solutions for addressing such difficulties.

In light of this, this study, combining education psychology and psychology of sex, updates the contemporary literature through the following efforts. First, this study explores the loneliness of homosexual male senior high school students based on the categorization of gender role identity (i.e., Hyper-masculine and Feminine). Second, this study advocates a solution from one high-validated aspect, parental bonding attitude (i.e., Care), which is demonstrated by parents. Last, this study explores the importance of parental bonding attitude on different identity roles of homosexual male senior high school students. A large body of studies exist contributing knowledge of how to reduce loneliness in today's society through parental bonding attitude; however, unfortunately, there is a relative lack of contributed understanding about how parental bonding attitude affects homosexual males (Gonsiorek & Weinrich, 1991). This paper proposes potential solutions to address these problems. Apart from the theoretical contributions, this paper also contributes some implications for practice. The research findings demonstrated that cultural traits of Asian countries, such as reticence and introversion (Chen & Chen, 2010), create a social gap between people, which is a critical cause of loneliness. Levels of loneliness in homosexuals are higher than in heterosexuals, and homosexuals at the junior high level and senior high level experience the highest rates of loneliness. To reduce rates of loneliness comprehensively and on a long-term basis, it is necessary to understand the loneliness of homosexual male senior high school students and the contributions of parental bonding attitudes of parents and senior high school teachers. This paper advocates that, in terms of

Table 2. Regression analysis of Loneliness regressed upon gender role identity and parental bonding attitude ($N = 127$)

Variables and enter steps	Loneliness (L)		
	Model 1	Model 2	Model 3
1. Covariates			
Year of study	.169	.093	.046
Living status	–	–	–
2. Gender role identity (RI)		.190*	.153*
Parental bonding attitude (PB)		–.709***	–.712***
3. RI×PB			–.571***
Adjusted R ²	.004	.532***	.865**
R ² change	.029	.549***	.305***

* $p < .05$; ** $p < .01$; *** $p < .001$.

parental bonding attitude, Care could successfully reduce the loneliness of homosexual male senior high school students.

Homosexuality is still a sensitive topic, and researchers in this study encountered some difficulties collecting data during the survey stage in the form of unfriendly resistance of those who did not participate while enquiring and unusable questionnaires of some who agreed to participate. Although such phenomenon helps verify the theory that children in junior high school and senior high school are particularly intolerant of homosexuals (Sigelman et al., 1986; Alfieri et al., 1996), which can further validate the value and contributions of this paper, the results may represent homosexual male senior high school students only partially. In the future, researchers are encouraged to overcome such research difficulties by working with counseling units of senior high schools with using a more formal way to identify homosexuality such as utilizing Kinsey's scales, a scale that attempts to describe a person's sexual history or episodes of his or her sexual activity at a given time (Kinsey, Pomeroy, & Martin, 1948), so as to eliminate possible resistance and unusable feedback.

Moreover, substance abuse today is an unsolved health issue that has been found to affect more homosexual males than heterosexual ones, and this area has received less study (Ghindia & Kola, 1996). Substance abuse among homosexual men has been suggested as a correlate for domestic violence (Schilit, Lie, & Montagne, 1990), suicide risk (Saunders & Valente, 1987), and intimacy dysfunction (Coleman, 1987), which are not just negative health issues but also serious social problems. However, current research maintains that parental bonding attitude has been found to have a strong relationship with mood, anxiety, and substance use disorders (Enns et al., 2002; Kendler et al., 2000). Future research is needed to investigate the consequence of substance abuse on homosexual males who experience high levels of Care from parents while in senior high school.

In addition, Care is still a loosely defined concept, and its meaning could vary from person to person. Therefore, it is difficult for parents of homosexual male senior high school students to perform adequately and efficiently. In this regard, future researchers are encouraged to qualitatively study this issue through such methods as in-depth interviews with homosexual male senior high school students to realize the nature and the definition of Care from those students' viewpoint.

Finally, the main aim of this study is to investigate whether loneliness of homosexual male students could be moderated by parental bonding attitude, which is a phenomenon exploration. Hence, this study did not put emphasis on each. Besides, to precisely observe

those who either possess hyper-masculine or feminine in terms of the degree to which parental bonding attitude could reduce loneliness may need to take more influential factors into consideration. It is because such investigation may need to consider biological and physical aspects of both roles of homosexual man. Specifically, there is a number of studies found biological and physical differences between homosexual men who possess either hyper-masculine or feminine (Lippa, 2003; McFadden & Schubel, 2002; McFadden & Champlin, 2000; Rahman, 2005; Robinson & Manning, 2000). Future research is suggested to take these aspects into account to further adequately investigate the differences of homosexual men who possess either hyper-masculine or feminine regarding the decrease of loneliness under parental bonding attitude of their parents.

This paper explores the link between the loneliness of homosexual male senior high school students and the moderating factor of parental bonding attitude. The results of this study verified the importance of parental bonding attitude in reducing loneliness of homosexual male senior high school students. These results may contribute to and increase the awareness of parents and teachers of homosexual male senior high school students that their children/students may be undergoing more significant feelings of loneliness than their heterosexual peers. This paper may help parents better understand how their parental bonding attitude can be a critical way for assisting children experiencing loneliness. Finally, this study contributes to the field and provides information to current researchers who focus primarily on heterosexuality on ways to address loneliness through parental bonding attitudes for a successful and long-lasting improvement of this issue in today's society.

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