International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 04, 2020
ISSN: 1475-7192

DOES GENDER MAKE A DIFFERENCE IN PROBLEM BEHAVIORS?

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ABSTRACT--*Gender differences exist in prevalence, developmental course, and factors and also processes that contribute to the development of problem behaviors. The most apparent aspect of gender differences in the way that problem behaviors expressed in boys and girls could be seen in delinquent behaviors. However, much of the research sampling on problem behaviors have been based on male samples. Thus can influence estimates of the prevalence of problem behaviors and how it is defined. For instance, it is commonly reported that male adolescents exhibit significantly higher levels of aggression than do female adolescents. Therefore, the research is aimed to study gender differences in protective factors, executive dysfunction, and symptoms of problem behaviors. The study consisted of 404 respondents of different problem behaviors such as gang fights, homicide, out of control behaviors, rape, armed robbery, drug trafficking, and drug use. Developmental Assets Questionnaire-Malaysian Version (DAQ-MV), Behavior Rating Inventory of Executive Function- Self Report (BRIEF-SR), and Achenbach System of Empirical Behavior Assessment- Youth Self-Report (ASEBA-YSR) were employed in the study. The results based on the T-testanalysis showed that there were gender differences in protective factors, executive dysfunction, and symptoms of problem behaviors. An advanced study is required in determining contributing factors of gender difference in problem behaviors. Moreover, the study contributed to the theoretical foundation and psychological study in the study of forensic and criminal psychology and at-risk children.*

Keywords--*conduct problem, gender, juvenile delinquents, adolescent development*

I INTRODUCTION

The prevalence of problem behaviors such as bullying, aggressive behavior, drug and alcohol use, armed robbery, pregnancy, and truancy is determined by the degree of different exposure to psychosocial environment factors such as family relationships, peers influence, school commitment, and community involvement. In Malaysia,

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DOI: 10.37200/IJPR/V24I4/PR201559
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

the rate at which problem behaviors such as drug and alcohol use, armed robbery, rape, homicide, aggression, bullying, and anti-social behavior that involve adolescents is alarming and has already reached a "red flag." According to the statistics, juvenile cases were reported by different agencies and institutions. That includes tobacco use [1], immoral behaviors, crimes [2], early sexual activity [3] and [4]. Other problem behaviors such as run-away cases and early teenage pregnancy (5) seem to be increasing yearly. Statistics [6] showed a total of 7,816 juveniles' cases reported, which is a higher number as compared to that of 2012 with only 3,700 juveniles' cases. Statistics show that adolescents mainly involved in minor offenses in index crime [6]. Moreover, there has been an increase in cases from 1,042 cases in 2012 to 1,632 cases in 2013, an approximation of 57%. Also, crimes involving non-students have raised to 133% from 2,658 cases in 2102 to 6,184 cases in 2013 [2].

In Malaysia, the problem behaviors engaged by males and females adolescents show greater manifestation in overt behaviors than covert behaviors [7]. Males are reported to show higher engagement in overt problem behaviors such as physical aggression, violence, group fights, and substance use [8]; [9]; [10]. On the other hand, females are more likely to be engaged in covert behaviors, such as stealing or running away [11]; [12]. Moreover, problem behaviors in females are associated with several adverse outcomes, such as early teenage pregnancy [11]. Female adolescents are more responsive to influences of peer pressure and guilt emotion than male adolescents. The different significant pathways of overt and covert problem behaviors of adolescents are observable in various institutions such as Kajang Prison, Henry Gurney School, and Tunas Bakti Schools [7].

Bronfenbrenner’s human development theory is used to explain a continual state development of a person [13]. The theory is putting into consideration and stressing on Process-Person-Context-Time (PPCT) interrelatedness as the above idea to understand overall individual development capacity. According to the PPCT, human development takes place through complex and progressive processes between the person, external environment, objects, and symbols. The proximal process and mutual interaction, however, must occur daily over a given period [14]. Further, the actual nature of the proximal process is varied to one individual to another, and much relies on both spatial and temporal context and also aspects of the individual. The person, according to the PPCT, refers to the biological and genetic aspects of the person [15]. It also indicates personal characteristics that people carry to his or her social life and events. This personal characteristic might include one's sexuality and the assigned gender. While, the contexts of human development in PPCT can be classified into five interconnected sub-systems, namely microsystems, mesosystems, exosystems, macrosystems, and chronosystems. The final element of PPCT is time. It plays a significant role in the PPCT model of human development is relatively constant and change. The time constitutes activities involved in different time elements such as micro-time, meso-time, and macro-time.

Therefore, the research is aimed to study gender differences in protective factors, executive dysfunction, and symptoms of problem behaviors. Four hypotheses were formed to test the objective of this study.*H1: There are gender differences in internal protective* factors*; H2: There are gender differences in external protective factors; H3: There are gender differences in executive dysfunction; H4: There are gender differences in symptoms of problem behaviors.*

DOI: 10.37200/IJPR/V24I4/PR201559
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

II METHODOLOGY

2.1 Research Design and Sampling

The study used a cross-sectional design with a survey method. Stratified random sampling was used among 404 respondents, which comprise of 280 male and 124 female adolescents. The unequal sample size of each stratum was required to the population size of the stratum. The results were analyzed by using a T-test analysis to measure the gender differences between protective factors, executive dysfunction, and symptoms of problem behaviors. The respondents were from correctional institutions in Malaysia, Tunas Bakti school, Kajang prison, and Henry Gurney school. Respondents' ages ranged from 13-year-olds to 18-year-olds. The respondents were among juvenile offenses with diverse conduct problems such as stealing, drug use, fighting, murder, rape, and out of control behaviors.

2.2 Instruments

2.2.2 Behavior Rating Inventory of Executive Function-Self Report (BRIEF-SR)

The Behavior Rating Inventory of Executive Function-Self Report (BRIEF-SR) is used to measure an executive function/dysfunction behavior for children and adolescents ages 5–18 [16]. It consists of 86 items. It has high test-retest reliability (rs - .88 for teachers, .82 for parents), internal consistency (alphas - .80 - .98), and moderate correlations between parent and teacher ratings (rs - .32 - .34) [16]. Its usage includes evaluating children and adolescents with a variety of disorders and disabilities such as traumatic brain injury, low birth weight baby, pervasive developmental disorders, high-functioning autism, learning disabilities, and Tourette syndrome [16].

2.2.1 Developmental Assets Questionnaire-Malaysian Version (DAQ-MV)

The Developmental Assets Questionnaire-Malaysian Version (DAQ-MV) consists of two domains, which are internal assets and external assets. Internal assets comprise of 12 constructs (54 items); achievement motivation, school engagement, caring/positive value, integrity, planning and decision making, interpersonal competence, resistance skill/resilience, self-esteem, a sense of purpose, positive view of personal future, morality/religiosity, and positive feeling [17]; [18]. While, external assets comprise nine constructs, including family support, positive family communication, other adult relationship, family boundaries, a caring neighborhood, hopes and expectations, positive peer influence, religious community, physical, emotional, and social safety. It is to measure an individual child's protective factors and risk factors [17]; [18]. The Developmental Assets Questionnaire-Malaysian Version (DAQ-MV) showed relatively higher values ranged between 0.87 Cronbach's Alphas to 0.88 Cronbach's Alpha [17]; [18].

2.2.3 Achenbach System of Empirical Behavior Assessment-Youth Self Report (ASEBA-YSR)

Achenbach System of Empirical Behavior Assessment (ASEBA-YSR) is used as an assessment to rate a child's problem behaviors and competencies. It has 140 items [19]. The ASEBA-YSR construct measured several domains,

DOI: 10.37200/IJPR/V24I4/PR201559
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

such as hyperactivity, conduct problems, aggression, bullying, violence, and defiance behaviours [19]. The test-retest value is 0.95 to 1.00, inter-rater reliability value is 0.93 to 0.96, and internal consistency value is 0.78 to 0.97 [19].

III RESULT AND DISCUSSION

3.1 Gender Differences in Internal Protective Factors

H1: There are gender differences in internal protective factors.

H2: There are gender differences in external protective factors.

An independent samples t-test was conducted to find the significant difference between male and female in internal protective factors. Table 1 showed that there was no significant difference between male and female in school engagement, male (M = 11.43; SD = 3.64) and female (M = 10.75; SD = 3.29); t (258.78) = 1.86, p > 0.05. Caring/positive values showed that there was a significant difference between male (M = 10.79; SD = 3.65) and female (M = 9.28; SD = 2.88); t (294.65) = 4.45, p < 0.001. Further, integrity also showed a significant difference between male (M = 13.31; SD = 4.26) and female (M = 11.11; SD = 3.07); t (319.61) = 5.85, p < 0.001. Planning/decision making showed a significant difference between male (M = 11.27; SD = 4.02) and female (M = 9.43; SD = 3.02); t (308.14) = 5.09, p < 0.001. Moreover, there was also a significant difference in resistance skill/resilience between male (M= 13.21; SD = 4.58) and female (M = 10.37; SD = 3.48); t (305.36) = 6.84, p < 0.001. Morality/Religiosity also showed a significant difference between male (M = 17.41; SD = 4.76) and female (M = 19.33; SD = 4.04); t (275.15) = -4.17, p < 0.001. Therefore, hypothesis 1 is accepted.

Table 1: T-test results of internal protective factors by gender

Variables	Gender	N	Mean	SD	df	t
School Engagement	Male	280	11.43	3.64	258.78	1.86
	Female	124	10.75	3.29		
Caring/Posit Values	Male	280	10.79	3.65	294.65	4.45*
	Female	124	9.28	2.88		
Integrity	Male	280	13.31	4.26	319.61	5.85*
	Female	124	11.11	3.07		
Planning/ Dec Making	Male	280	11.27	4.02	308.14	5.09*
	Female	124	9.43	3.02		

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Resistance/	Male	280	13.21	4.58	
Resilience	Female	124	10.37	3.48	305.36 6.84*
Morality/	Male	280	12.59	4.76	
Religiosity	Female	124	10.67	4.04	275.15 -4.17*

*p < 0.001

3.2 Gender Differences in External Protective Factors

An independent samples t-test was conducted to find the significant difference between male and female in external protective factors. Table 2 showed that there was a significant difference between male and female in family support, male (M = 14.49; SD = 4.40) and female (M = 13.14; SD = 3.57); t (286.66) = 3.263, p < 0.01. There was also a significant difference in family boundaries between male (M = 10.77; SD = 4.32) and female (M = 9.69; SD =3.22); t (310.51) = 2.77, p < 0.01. Moreover, positive peer influence showed a significant difference between male (M = 17.74; SD = 5.00) and female (M = 15.65; SD = 4.27); t (273.26) = 4.32, p < 0.001. However, there was no significant difference in positive family communication between male (M = 14.11; SD = 4.78) and female (M = 13.62; SD = 4.53); t (248.01) = 0.99, p > 0.05, and in religious community between male (M= 11.30; SD= 4.02) and female (M = 11.19; SD = 4.05); t (234.20) = 0.26, p > 0.05. Therefore, hypothesis 2 is accepted.

Table 2: T-test results of external protective factors by gender

Variables	Gender	N	Mean	SD	df	t
Family	Male	280	14.49	4.40		
Support	Female	124	13.14	3.57	286.66	3.26*
Positive Fam	Male	280	14.11	4.78		
Comm	Female	124	13.62	4.53	248.01	0.99
Family Bound	Male	280	10.77	4.32		
	Female	124	9.69	3.22	310.51	2.77*
Positive Peer	Male	280	17.74	5.00		
Influence	Female	124	15.65	4.27	273.26	4.32**
Religious	Male	280	11.30	4.02		
Community	Female	124	11.19	4.05	234.20	0.26

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*p < 0.01 **p < 0.001

3.3 Gender Differences in Executive Dysfunction

H3: There are gender differences in executive dysfunction.

An independent samples t-test was conducted to find the significant difference between male and female in inhibitory control and emotional control deficits. Table 3 showed that there were significant differences between male and female in both inhibitory and emotional control. In inhibitory control deficit, there was significant difference between male (M = 19.52; SD = 3.36) and female (M = 20.99; SD = 3.75); t (214.04) = -3.75, p < 0.001. Moreover, in emotional control deficit, there was also significant difference between male (M = 16.83; SD = 3.25) and female (M = 20.20; SD = 3.48); t (222.07) = -9.18, p < 0.001. Therefore, hypothesis 3 is accepted.

Table 3: T-test results of inhibitory control and emotional control deficits by gender

Variables	Gender	N	Mean	SD	df	t
Inhibitory Control Deficit	Male	279	19.52	3.36		
	Female	124	20.99	3.75	214.04	-3.75*
Emotional Control Deficit	Male	280	16.83	3.25		
	Female	124	20.20	3.48	222.07	-9.18*

*p<.001

3.4 Gender Differences in Symptoms of Problem Behaviors

H4: There are gender differences in symptoms of problem behaviors.

An independent samples t-test was conducted to find the significant difference between male and female in symptoms of problem behaviors. Table 4 showed that there was a significant difference between male and female in aggressive behavior, male (M = 15.75; SD = 5.85) and female (M = 17.73; SD = 5.76); t (239.01) = -3.17, p < 0.01. However, there were no significant differences between male and female in rule-breaking behavior, male (M = 14.57; SD = 5.05) and female (M = 15.61; SD = 5.38); t (222.61) = -1.84, p > 0.05. Therefore, hypothesis 4 is accepted.

Table 4: T-test results of symptoms of problem behaviors by gender

Variables	Gender	N	Mean	SD	df	t
Rule Breaking	Male	280	14.57	5.05		

DOI: 10.37200/IJPR/V24I4/PR201559
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

Behavior	Female	124	15.61	5.38	222.61 -1.84
Aggressive	Male	280	15.75	5.85	
Behavior	Female	124	17.73	5.76	239.01 -3.17*

* $p < 0.01$

There are a few considerations in explaining problem behaviors in male and female juvenile delinquents from the present findings. In the literature, females tend to show more covert problem behaviors than males that usually associated with overt problem behaviors [20]; [21]. Males and females are different in their base rates of many types of behaviors. For instance, rough play and other clinically significant conduct problems such as physical aggression are noticeable among males [22]; [23]; [24]. Even though males show higher rates of such behaviors, and applying the same diagnostic criteria for males and females may unvaryingly lead to the same conclusion that more males have problem behaviors than females. However, the present findings show that female juvenile delinquents show a relatively higher score on aggression, while there are no gender differences in rule-breaking behavior. The findings do not correspond to the existing literature, in which males typically associated with aggression than females. However, examining the group of delinquents who fall into the upper range of these types of problem behaviors for their gender differences may provide crucial information. Therefore, to understand problem behaviors in male and female delinquents, it may be informative and useful to include covert behavior, such as stealing and lying, as well as overt behavior such as physical aggression [25]. Besides, further understanding of problem behaviors in male and female delinquents would be to focus on the relative prevalence of problem behaviors of each gender.

Concerning the above discussion, another study found that the risk and protective factors for different outcomes are higher in females than males even though with the same diagnosis of disruptive behavior disorder [26]. This condition sometimes referred to as gender paradox. Gender paradox is the notion about gender with the lower prevalence of a problem or disorder is at a higher risk of poor outcomes [26]. Thus, pervasive forms of psychopathology and other severe problem behaviors, usually manifest in females than males at high-risk conditions. The assumption of gender paradox is especially evident in the distributions of deviancy among incarcerated adolescents and significantly associated among high-risk adolescents rather than in general populations. Therefore, the gender paradox is recorded in the present study, by which female juvenile delinquents are higher in inhibitory control and emotional control deficits, as well as higher in aggressive behavior than male juvenile delinquents [22]; [25]. Specifically, expecting that for male juvenile offenders, the distribution of multiple forms of symptoms of problem behaviors such as rule-breaking behavior and aggression [25] would positively accelerate while in female juvenile offenders, however, a more decelerate distribution, with a low prevalence of

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Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

females showing a low variety of symptoms of problem behaviors. In opposition, the female juvenile delinquents relatively show higher problem behaviors, while males are higher in protective factors.

Therefore, gender paradox may exist in the realm of problem behaviors among young offenders or incarcerated male and female adolescents. As such, female juvenile offenders, in general, are found to have fewer problem behaviors than males, but symptoms of problem behaviors in females are more pervasive than in males. While female juvenile delinquents have lower levels overall in external and internal protective factors; however, female exhibits higher symptoms of problem behaviors of aggression than males. Exceptional for rule-breaking behaviors in which there are no gender differences found. It is a convenience to say that the problem behaviors are not a function of age, but gender effect. The gender paradox was first found by [26]; [27] several decades ago [28]. In this regard, two models may be used to explain the gender paradox phenomenon. Firstly, according to the Polygenetic Multiple-Threshold Model [29], in corresponding to the gender paradox issue, the model suggests that the underlying susceptibility of male and female adolescents are congruent in the occurrence of problem behaviors. Meaning to say, both male and female juvenile delinquents must have the same degree of life and environmental adversities and vulnerability towards risk/protective factors, executive dysfunction, and symptoms of problem behaviors [29]. However, the level of exposure needs to be exceeded before male and female adolescents get affected and influenced by the psychological difficulties, life and environmental adversities are differs for the two genders.

Secondly, according to the Constitutional Variability Model, the variability among incarcerated adolescents is much determined by the genetic variability, especially in males [28]. Thus, more juvenile delinquent males show milder forms of disorders than females as the result of the genetic variation. Several researchers have cautioned on the conclusion of gender paradox, in which that a gender paradox may merely be the result of differential clinical referral samples that is more sensitive to the problem behaviors of males than females [30]. Therefore only the most deviant female adolescents are referred for clinical treatment [31]; [28]. Hence, the differential referral samples, as the above explanation, reflect in the present sample since it a limited population sample of the juvenile delinquency category.

Besides that, females are much easier to socialize as compared to males [32]. Thus, the differences in socialization between females and males may assist in the formation of gender differences in risk/protective factors, executive dysfunction, and symptoms of problem behaviors [30]. These behaviors display among incarcerated female adolescents in the present study, in which prolonged deleterious socialization in the prison and rehabilitation center/school may support female juvenile delinquents to form and learn new sorts of behaviors such as aggression and violence [30]. As such, not only aggression becomes more prevalent in females, but other symptoms of problem behaviors as well. However, in the present study, there is no gender difference in rule-breaking behavior, indicating that females, as well as males, are both potentially to exhibit the same degree of symptoms of problem behaviors. The finding on rule-breaking behavior confirms the previous study [33] that there were no significant gender

DOI: 10.37200/IJPR/V24I4/PR201559
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

differences regarding conduct problems for males and females in forensic samples, even though the prevalence rates are very high.

Another possible reason is relating to the role of pro-sociality in the developmental processes of problem behaviors [34]. Starts from the beginning, females are more likely to show prosocial behavior than males. This difference although quite controversial from a cultural perspective [35], but to a certain degree, the difference may reflect inherent gender differences in prosociality that due to different socialization agents in males and females since early life that creates the pro-sociality difference in male and female adolescents. About the pro-sociality, there are shreds of evidence by which the gender differences in risk/protective factors, executive dysfunction, and problem behaviors in males and females are due to genetic and environmental influences. The influences of genetics and environment are both similar for males and females adolescents [36], especially on early-onset problem behaviors. However, more distinct genetic and environmental influences were found on late-onset problem behaviors [37].

Furthermore, the degree of genetic influences increases the possibility of different causal influences on females' problem behaviors, such as the influences of genetic on pubertal timing. This influence is reasonable as some studies [38] suggest that female adolescents who reached early-maturation show much earlier and higher likelihood to involve in problem behaviors. Thus, pubertal timing in females has strong genetic influences on their risk and protective factors exposure, executive dysfunction, and behavioral outcomes [39]. Also, there are other possible clarifications for the gender differences in the environmental influences on risk/protective factors, executive dysfunction, and problem behaviors in male and female adolescents [32]. Firstly, adolescents' differences in risk/protective factors exposure, executive dysfunction, and problem behaviors may reflect how parents or family members and community socialize and interact with developing male and female adolescents. Therefore, the specific means of socialization and interaction practices somehow embedded in the cultural values of each family and community [35].

Secondly, the gender differences in the present study may result from the interaction between pubertal development and peer influences [40]. An early onset puberty adolescents, especially females, are prone to perceive themselves in negative manners [41]. Thus, they are more likely to receive negative peer influences that may lead to problem behaviors, exposure to low protective factors, and also poor executive function [30]. Whereas, for early mature male adolescents, more positive acceptance towards the biological and physical changes than females [41]. Thus, more positive peer influences towards protective factors and high executive function. Thirdly, female adolescents may be more sensitive to some kinds of social influences than males [42]; [43], in which one potential difference between male and female adolescents being over-sensitive to family conflict especially in females [44]. Therefore, due to the cultural socialization and expectation of females in family ties [35], the early exposure of low protective factors such as family conflict, negative family bonding is much-affecting females'adolescents'behavioral outcomes than males [45].

DOI: 10.37200/IJPR/V24I4/PR201559
Received: 22 Sep 2019 | Revised: 13 Oct 2019 | Accepted: 15 Jan 2020

Additionally, there is evidence that the negative emotionality and problem behaviors may be stronger for males than females [46]. However, there is no proof in the present study that male juvenile delinquents associated with negative emotionality. In fact, in the present study, female juvenile delinquents show a higher emotional control deficit than males. As such, female delinquents who engage in problem behaviors usually exhibit poor emotional control characteristics regardless of their age of onset of problem behaviors, whereas the features of males with earlier versus later ages of onset vary significantly [30]; [47]. Thus, there are many possible reasons why gender differences in risk/protective factors, executive dysfunction, and problem behaviors could reflect fundamental gender differences in the causal matrix. All of the above possibilities deserve further study, whether that gender differences in risk/protective factors, executive dysfunction, and problem behaviors can fully explain by gender differences in mean levels of the inclination components of symptoms of problem behaviors.

In conclusion, based on the sample of juvenile delinquent adolescents, male juvenile delinquents are higher in internal and external protective factors than female juvenile delinquents, except in morality/religiosity, in which no gender differences between male and female incarcerated adolescents. On the other hand, there are gender differences in executive dysfunction in which females are higher in inhibitory control and emotional control deficits. Female delinquents also are higher in aggressive behavior than males, except for rule-breaking behavior in which no gender differences. Gender Paradox, genetic influences and variability, socialization agents, life and environmental adversities, pubertal timing, and peer influences are some possible explanation for the present findings. However, to better understand the unique phenomenology of risk/protective factors, executive dysfunction, and symptoms of problem behaviors amongjuvenile delinquents, further investigation on gender differences, including early-onset and late-onset of problem behaviors, may lead to an in-depth understanding of the phenomenon. Also, taking into consideration several aspects of cultural values, particularly in a collectivistic culture, may lead to a better conclusion.

IV ACKNOWLEDGMENT

Authors would like to show the gratitude to CRIM UKM for the research grant GGPM-2018-026. This research was fully supported by the above mentioned research grant, as without the grant, it was very impossible to complete this research.

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