

Masculine Identity: How It Affects Street Racing and Aggressive Behaviour in Young Motorcyclists

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ABSTRACT

Youth illegal racers who adhere to socially defined masculinity ideals often engaged in illegal racing and aggressive behaviours solely to demonstrate the assertiveness of masculinity. This mixed-method study was carried out to investigate the extent of masculine identity among young motorcyclists and how it affects street racing and aggressive behaviour. Phase 1 of this study was conducted in December 2020 involving a group of young illegal racers in Penang, Malaysia and the masculine identity levels were measured using the Conformity to Masculine Norms Inventory-22 (CMNI-22) survey. The association between masculine identity, illegal racing status (Model 1) and aggressive behaviours (Model 2) was determined using Multiple Logistic Regression. Phase 2 of the study explored the meaning of self-perceived masculine identity among 400 young motorcyclists. Participants that had high masculine levels were found to be four times more likely to a racer (95% Confidence Interval (CI) 3.57, 6.12; P = 0.001) and five times more likely to commit aggressive behaviours (95% CI 3.57, 6.12; P = < 0.001) compared those with low masculine identities. This study revealed that illegal racers perceived masculine identity as having a macho appearance, exhibiting playboy behaviours, and driving recklessly. This study demonstrated the need for a special awareness program that helps youths to explore their masculinity and channel it in the right way.

Contribution/Originality: This study is one of the very few studies which have investigated identity masculinity among illegal street racers. The paper's primary contribution is finding that to understand the masculine identity that is the trigger for aggressive behaviour.

1. Introduction

Masculinity is defined by preconceived notions on how a man should present himself and react in a social setting (Addis & Mahalik, 2003; Tremblay & Turcotte, 2005). Masculine identity is a trait, behaviour and role that has associations with men (Jourian, 2018; Quam et al., 2020). According to Walker et al. (2000) masculine identity consists of four core behaviours; masculine gender role pressure and thoughts, liberal gender behaviour, ease with emotions, and loving behaviour towards men. Both clinical and psychological research have shown that having a high masculine identity leads to the need to appear powerful and authoritative, thus leading tendency to behave aggressively (Dovidio & Gaertner, 2004; Rudman & Kilianski, 2000).

2. Literature Review

Masculine identity is often associated with violence, aggression and speeding in men (Amad et al., 2020; Berger et al., 2013; Berggren et al., 2020; Forward, 2021). Motorcycle races among youth are popular and have different monikers around the world like 'Mat Rempit' in Malaysia, 'sprints' or 'cannonball runs' in Europe and the United States of America, 'Hoon and Boy-Racer' in Australasia, 'Tramero' in Spain, and 'Hashiriya' in Japan (Hussin, 2017; Ibrahim et al., 2015).

Illegal racing usually occurs on public roads where illegal racers perform dangerous motorcycle stunts like the Superman, zig-zag, and the head bowing stunt to portray their masculinity among peers to show dominance, power and be respected (Amit et al., 2016). High levels of masculinity displayed through aggression and dominance are rooted in the need to improve self-image and gain respect from their peers (Hussin & Ahmad, 2021). Studies have shown that when intimidated, violence is used to protect reputation, display superiority and reclaim conventional masculine identity (Casey et al., 2020; Leone et al., 2016). Studies show that illegal racers who adhere to preconceived masculinity ideals tend to engage in harmful activities like drug abuse, fights, reckless driving, rude behaviour and promiscuous behaviours (Courtenay, 2000).

According to Addis and Mahalik (2003), there is a moderate correlation between masculine identity and violent behaviour and a strong correlation with the need to exert social dominance. Conversely, several indicate no correlation between masculine identities and violent behaviour (Jakupcak, Lisak, & Roemer, 2002).

There is limited information on the implications of masculine identity on young illegal racers in Malaysia. Consequently, this study focuses on the effect of masculine identity that triggers the desire to race and commit aggressive behaviour among young illegal racers in Malaysia. This study hypothesised that young motorcyclists with high masculine identity have a higher tendency to become illegal racers and commit aggressive behaviour compared to motorcyclists with low masculine identity. This study can provide a comprehensive understanding so that strategies can be developed to address this issue.

3. Methodology

Phase 1 of this study involved 400 vulnerable youths who participated in illegal motorcycling races in Penang, one of the highest numbers of illegal races in Malaysia. In

Penang, popular routes and highways are often used for illegal racing and mass gathering and cause public disturbances.

The participants were recruited through the chain referral sampling method that relies on the initial participant to refer others as it is difficult to obtain participation because of the moral, social taboo, and potential legal implications of this study. The study began with recruiting several participants before the location and names of other potential participants were obtained.

This study included youth participants that were involved in illegal races in any capacity and can be corroborated. A detailed explanation about the study was given to the participants before the study begins. Adequate time was allocated for the participants to make the decision. A written informed consent form was given once the participants agreed to participate in the study for them to sign. For youth below 18 years old, the written consent was obtained from the parents or legal guardians. After parental consent was obtained, child's agreement was taken. The confidentiality of the data was strictly maintained, whereby only author could access the data. Participants who cannot read and write in the Malay language were excluded from the study. The participants were given reward money as a token of appreciation.

Participants were given a questionnaire that contained two parts: i) socio-demographic information, details about illegal racing, and violent tendencies and ii) an inventory to assess masculine identity which was based on the CMNI-22 (Hamilton & Mahalik, 2009).

The CMNI-22 consists of 22 items that assess conventional masculinity norms and participants were asked to score each item based on how they agree with the statement by choosing either: 'Strongly Disagree', 'Disagree', 'Agree', and 'Strongly Agree' (Hamilton & Mahalik, 2009). Consequently, higher scores indicated higher masculine identities among the illegal racers.

The data obtained were then analysed using Statistical Package for Social Science (SPSS) version 22. The socio-demographic background of the participants like age, occupation, education level, family background, details about illegal racing activities like frequency, motorcycle brands and duration of involvement, and violent tendencies like drinking, substance abuse, drug addiction, vandalism, bullying, fighting, gambling, and stealing were tabulated. Multiple Logistic Regression analysis was used to determine the relationship between masculine identity and illegal racing status and aggressive tendencies. Model 1 demonstrated the association between masculine identity group (low and high) and illegal racing status (racer/convoy only) while the association between masculine identity group (low and high) and aggressive behaviour (yes/no) was examined in Model 2. Simple logistic regression (SlogR) was used to screen a selection of variables and variables with a *p*-value of less than 0.25 from the univariable analysis were selected for Multiple Linear Regression (MlogR) where predictors were estimated by determining Odds Ratio (OR) where if 95% of the CI crosses 1.0, the OR was not significant with a *p*-value > 0.05.

Variance Inflation Factor (VIF) was also used to check multicollinearity, where values less than ten were acceptable and showed no multicollinearity. The fitness of the model was investigated using the Receiver Operator Characteristic (ROC) curve and Hosmer and Lemeshow goodness of fit test where *p*-value more than 0.05 and area under the curve value of 0.7 indicated good fit. Lastly, the enter method was utilised to determine

the final model where a 95% confidence interval, Wald statistics, OR, and *p*-value of less than 0.05 was employed.

Phase 2 involved a qualitative study that oriented towards gathering views and perceptions about self-perceived masculine identity in illegal racers through an interview guided questionnaire. The interviews were recorded using a recorder and the recordings were later transcribed using the Microsoft Office Word software and computed into the NVivo software for coding purposes. In this study, thematic analysis was used as it was the most flexible method that involved identifying quotes and storing information in a database, before transcribed and analysed (Braun et al., 2019).

4. Result

A total of 400 motorcyclists between 14 to 29 years with a mean age of 20.48 ± 1.59 years participated in this study. All the participants were single, Malay males where 50% where 67% reported living in a rural area with their families with a household income within RM 1000 to RM 4000. Table 1 shows the socio-demography background of the participants.

Table 1: Socio-demographic background of participants (n = 400)

Variables	Frequency (%)
Age (years)	
14-17	50 (12.5)
18-21	260 (65.0)
22-29	90 (22.5)
Education level	
Primary school	44 (11.0)
Lower secondary	250 (62.5)
Higher secondary education	106 (26.5)
Working status	
Mechanics	72 (18.0)
Unemployed	28(7.0)
Students	200 (50.0)
Food Conveyor	58 (14.5)
Factory workers	42 (10.5)
Household income (RM)	
Below 1000	50 (12.5)
1000-4000	258 (64.5)
Above 4000	92 (23.0)
Locality	
Urban	96 (24.0)
Rural	304 (76.0)
Type of residence	
Rented house	113 (28.25)
Terrace house	123 (30.75)
Apartment house	45 (11.25)
Village house	119 (29.75)
Living with	
Peers	65(16.3)
Family	335(83.8)

Variables	Frequency (%)
Family problem	
Yes	295 (73.75)
No	105 (26.25)
Lack of religious/spiritual nature	
Yes	315 (78.75)
No	85 (21.25)

A total of 230 participants were classified as illegal racers where the mean duration of being involved in illegal racing was 1.3 years. Furthermore, 73% of the participants did not have a valid driving license and 54% had modified their motorcycle as shown in [Table 2](#).

Table 2: Racing activities among participants (n = 400)

Variables	Frequency (%)
Illegal racing status	
Racer	230 (57.5)
Convoy only/bystander	170 (42.5)
Duration involved (years) as a racer	1.31(1.13)
Frequency of racing	
Very often/often	176 (44.0)
Sometimes/Rarely	54 (13.5)
Valid driving licence	
Yes	108 (27.0)
No	292 (73.0)
Motorcycle modification	
Modify	216 (54.0)
Standard	184 (46.0)

A total of 186 participants had acknowledged that they had engaged in aggressive behaviour like drinking (30%), vandalism (74.7%), stealing (52.7%), and fighting (69.9%) as seen in [Table 3](#).

Table 3: Involvement in aggressive behaviour (n = 186)

Variables	Frequency (%)
Drinking	120 (30.0)
Intake prohibited substance	118 (29.5)
Drug addiction	23 (5.75)
Vandalism	139 (74.73)
Bullying	150 (37.5)
Fighting	130 (69.9)
Gambling	10 (5.4)
Stealing	98 (52.7)

The median masculinity score of the participants was 31 where the results ranged from four to 63 (M = 30.98, SD = 8.76). Illegal racers had a higher mean masculine identity score of M= 43.13, SD = 9.21) compared to the convoy only group (M = 34.32 SD = 8.98) and this difference was statistically significant $p < 0.05$ in univariable analysis (independent t-test). The relationship between masculine identity and the role of the participant in an illegal race is shown in [Table 4](#).

Table 4: Relationship between the illegal racing group and masculine identity score (n = 400)

Variables	N	Mean	SD	SE	t	p-value *
Illegal racer	230	43.13	9.21	2.34	0.16	0.002
Convoy only	170	34.32	8.98	2.13		

Notes. *independent t-test

The association between the masculinity identity group and the illegal racing status group is shown in Table 5. Participants were considered to belong in the “low masculine identity group” (n = 179) with mean scores of less than 31 and in the “high masculine identity group” (n = 221) with mean scores of 31 and above. Model 1 noted that participants in the high masculine identity group participants were four times more likely to be a racer compared to participants from the low masculine identity group participants and this association was statistically significant. Around 84.2% of items were correctly classified with no multicollinearity discovered, the model was discovered to be a good fit as Hosmer and Lemeshow test values were *p*-value = 0.251, and ROC curve value was 94%.

Table 5: Association between masculine identity group and illegal racing status among participants in model 1 (n = 400)

Variable	Crude OR ^a (95%CI)	Adjusted OR ^b (95% CI)	Wald statistic ^b	<i>p</i> -value ^b
High masculine identity group	3.14 (3.05, 4.41)	4.21(3.57, 6.12)	10.15 (1)	0.001
Lack religious spiritual	1.32 (1.19, 1.62)	2.31(1.27, 3.11)	7.84 (1)	0.002
Problematic family structure	2.24 (1.56, 2.65)	2.39 (1.83, 3.03)	9.01(1)	0.014
Intake of prohibited substances	4.11(3.11, 5.05)	5.01(4.72, 6.02)	10.12 (1)	0.019

Notes. ^aSimple logistic regression ^bMultiple Logistic Regression

Table 6 shows the relationship between masculine identities and aggressive behaviour in participants based on the data from Model 2. It was observed that participants with high masculine identity were more likely to commit aggressive behaviour compared to participants with low masculine identity. Around 83.5% of items were correctly classified with no multicollinearity discovered, and the model was discovered to be a good fit as Hosmer and Lemeshow test values were *p*-value = 0.243, and ROC curve value was 94%.

Table 6: Association between masculine identity group and aggressive behaviour among participants in model 2 (n = 400)

Factors	Crude OR ^a (95%CI)	Adjusted OR ^b (95% CI)	Wald statistic ^b	<i>p</i> -value ^b
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Factors	Crude OR ^a (95%CI)	Adjusted OR ^b (95% CI)	Wald statistic ^b	p-value ^b
Illegal Racer	5.99 (1.58,22.67)	6.69 (5.13,7.35)	16.92 (1)	<0.001
High masculine identity group	4.15 (3.04,4.51)	5.21 (3.55,6.11)	10.25 (1)	0.001
Lack religious spiritual Intake of prohibited substances	1.27 (1.09,1.82) 4.21 (3.12,5.11)	2.09 (1.29,3.41) 5.11 (4.82,6.12)	8.84 (1) 10.32 (1)	0.003 0.022

Notes. ^a SlogR ^bMultiple Logistic Regression

The Phase 2 study found that participants with high masculine identity tend to display reckless driving styles, playboy behaviour, and machoism and are considered key factors to appear masculine according to the participants.

Reckless driving is often done to obtain attention and awe from the community by driving recklessly and breaking traffic laws without regard for personal or public safety (Taubman-Ben-Ari & Skvirsky, 2016; Taubman - Ben-Ari et al., 2016; Yan et al., 2019; Hinnant & Stavrinos, 2020; Lee et al., 2021; Wang et al., 2018). This explanation is based on participants expressions given below:

"I don't feel satisfied riding a motorcycle if you don't drive fast ... driving fast on this motorcycle shows courage ... I can be a boy." - 25, Mechanic

"Sometimes, the easiest way to get people's attention is to drive fast and dangerously. I sometimes think that it's bad luck if I don't know about the accident."- 23, Student

Playboy behaviour is gradually incorporated into the concept of masculinity where an individual likes to splurge (Beggan & Allison, 2003; Osgerby, 2002) and exchange women like objects among their peers for sexual gratification, and entertainment. This explanation is based on participants expressions given below:

"For me..the masculinity of a man is defined when I succeed in an illegal race, the prize is quite lucrative there is money, collateral, and women. I get a lot of girls The least I get is 'Bohsia' who likes 'Mat Rempit'."- 26 years old, Mechanic

"For me, I can look more masculine by making myself a playboy ... I also admit that many are attracted to the shape of my body and my handsome face...I play with women after giving them a gift." - 23 years old, Student

Macho appearance is defined as an individual with a strong body that can attract women to have sexual relations (Gaiosio et al., 2015; Gutmann, 2006). This was corroborated by statements from two participants:

"Masculinity is when a person shows machoness and succeeds in attracting women ... women will be seduced when they see our

appearance ... for me, a man should show off with his body and his masculinity to seduce women, where my experience is to have sex on the first day we meet” – 23 years old, Student

“Be yourself as a macho person and show the strength of your strong body ... sometimes even with friends are the head of a Disco” – 26 years old, Mechanic

“For me, my inspiration is Shahrul Yuzy who is a model... every time he races on the circuit... I will follow him. I see him (Shahrul Yuzy) as a masculine, brave, and macho man with his masculine style... I am proud of him, as he strives as a mentor to educate new talents in the Malaysian Cub Prix outfit Team Petronas Sprinta Racing and now he is leading Yuzy Racing, his Cub Prix racing team ... really great ” - 25 years old, Mechanic.

This study found that masculine identity in illegal motorcycle racers is associated with traits like being a smoker, dashing, strong, brave, respected, famous and aggressive. This masculine ideology has been proven to be related to violent behaviour and unhealthy lifestyles like smoking, excessive alcohol consumption, and promiscuity. Conversely, masculine identity is essential for maintaining an image, increasing social status, and using violence to resolve any form of conflict especially for ‘Mat Rempits’ in Malaysia.

5. Discussion

A total of 400 young motorcyclists who engaged in illegal racing were recruited in this study. The socio-demographic backgrounds and racing activities of participants were similar to the existing studies done in Malaysia (Amit et al., 2016; Ibrahim et al., 2015; Mansor & Che Mat, 2011; Wong, 2011, 2012). It was noted that all participants Malay males and only 40% of them were working while the rest were either unemployed or students. Furthermore, most participants were frequently involved as illegal racers, have modified motorcycles, and display aggressive behaviours.

This study aimed to measure masculine identities using CMNI-22 that evaluate adherence to various masculinity ideals among illegal racers. This study revealed that participants who were more inclined to masculine norms were more likely to be involved as racers in illegal racing and commit aggressive behaviour than participants who had low masculine identities. This study noted that macho appearances, reckless driving and playboy behaviours were preconceived masculine traits among illegal racers. Furthermore, participants got involved in street racing to gain social approval, respect among peers and to appear dominant.

This finding is corroborated by studies that show the need to be powerful, dominant, respected, and reckless driving are avenues to express masculinity (Begg & Langley, 2001; Harré et al., 2000; Janssens et al., 2007; McKenna et al., 2006; McKenna & Horswill, 2006). There is a correlation between masculinity and driving styles, where men are more likely to engage in aggressive driving and speeding (Guggenheim et al., 2020; Maxwell et al., 2020; Shukri et al., 2021). Violence, intimidation, and domineering attitudes were displayed among illegal racers which was a sign of high masculine identity. This was corroborated by Jakupcak, Lisak and Roemer (2002) who noted men who conform to masculine norms justified the act of using any form of aggression to overcome disputes.

This study suggests that young illegal racers tend to express their masculinity and act aggressively in a large group or street gang. This mob mentality influences people to behave similarly, lose self-awareness, and make decisions to conform with other people (Atkinson, 2006; Pinizzotto et al., 2007; Replogle, 2011). The mob mentality is prevalent among the illegal racing community in Malaysia, representing a large group of people that are not concerned about the law and will repeatedly commit this crime.

Most participants were unaware that they were being controlled or manipulated by other racers in their group as verbal communication becomes difficult in a large group. Similar studies have shown that in a group of more than 200 people, only 5% of people in the group is needed to influence the direction and motivation of its members (Akoi, 2019; Bowden et al., 2021).

There were several limitations and caveats in this study. Firstly, this study focused only on young Malay males in Penang and cannot generalise the entire population of Malaysia. Future studies can examine the differentiation of masculine conformity to illegal racing norms in other populations across Malaysia.

Regardless of these limitations, this study is the first to investigate the self-perceived masculine identity and its effect on aggressive behaviour in illegal racers. Furthermore, the integration of both qualitative and quantitative data gives a better representation of perspective among participants. The use of snowball sampling techniques increased the sample size of the study making the results more accurate, reliable and valid.

6. Conclusion

This study reported that masculine identity was very important and youth who adhered to socially defined masculinity ideals often engaged in illegal racing solely to display masculinity. The results demonstrated the need for specific prevention program targeting vulnerable youths to help explore their masculinity and channel it correctly.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research and Innovation Management Centre (RIMC UUM).

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Conflict of Interests

The authors declare no conflict of interest.

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