RESEARCH ARTICLE

Drive for muscularity and tendencies of muscle dysmorphia among Pakistani bodybuilders: A prevalence study

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Abstract

Objective: To assess the relationship between drive for muscularity and muscle dysmorphic tendencies in Pakistani bodybuilders.

Method: The cross-sectional study was conducted in Lahore, Pakistan, from June to September 2017, and comprised male bodybuilders in their early and middle adulthood. Data was collected using an indigenous Drive for Muscularity Inventory and the Body Dysmorphic Disorder factors of the Yale-Brown Obsessive Compulsive Scale. Data was analysed using SPSS 21.

Results: There were 211 subjects with a mean age of 26.25±5.946 years. There was a positive relationship between drive for muscularity and tendencies of muscle dysmorphia ($p<0.05$). Of the total, 130(62%) bodybuilders had a moderate level of drive for muscularity. Unmarried bodybuilders aged 18-25 years had more drive for muscularity compared to married bodybuilders age 26 years and above ($p<0.001$).

Conclusion: The drive for muscularity and muscle dysmorphic tendencies were found prevalent in Pakistani culture.

Keywords: Drive for muscularity, Tendencies of muscle dysmorphia, Culture, Bodybuilders. (JPMA 71: 1350; 2021)

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Introduction

Modern societies and cultures enclosed in the context of technology have shown tendencies for physical perfection and ideal body image regardless of gender. Mostly, men are striving to attain "V-shaped" body having broad chest, muscular arms and a narrow shaped waist. A large number of men are preoccupied, dissatisfied with their body and have a great concern about their physical appearance, body image and body mass.[1] The desire to have a muscular body is one of the most demanding self-image concern among men,[1] and, as such, they remained engaged in weightlifting and bodybuilding activities.[2] The term 'drive for muscularity' (DM) has been described as an individual's motivation or desire to become more muscular.[3] Due to the change in thoughts and attitudes, individuals want to enhance their muscle mass despite having normal or even exceptionally large muscular body.[4] Men often confuse muscularity with masculinity, especially in Pakistani culture.[5]

There are also negative outcomes of this strong DM as it has negative psychological effects on men just like the drive for thinness in women lowers self-esteem.[3] All such problems can convert into pathological symptoms, and one of them is dysmorphia disorder.[6]

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Muscle dysmorphia (MD) is considered one the most severe body image disturbances in which individuals with above-average muscle mass perceive themselves as insufficient or lacking significant muscle mass and become obsessed with this notion.[7] MD is an excessive pathological preoccupation with muscularity like the pursuit of a lean, hyper-muscular body, which is associated with deviant behaviours that particularly affect bodybuilders.[1] Many activities, such as relationships with friends, may cause severe distress, greatly impair social and occupational functioning of the individual, and their sexual partners suffer because of the self-conscious aspect associated with MD.[8]

These preoccupations lead to diet, weightlifting and anabolic androgenic steroids or other substances, sometimes causing bodily damage and this form of body dysmorphic disorder is exclusively seen in male population.[7] Men with MD invest more in their physical appearance and experience more anxiety in this regard.[1] Research has revealed that there is a positive relationship between drive for muscularity and MD.[9]

Ongoing research is focussing on the link between cultural impact and psychological constructs by giving an indigenous meaning to a social behaviour in terms of development, experience, expression and manifestation of the DM and dysmorphia.[10] Men in Pakistan are known to engage in steroid use to achieve the ideal physique.[11] The current study was planned to assess the relationship between drive for muscularity and muscle dysmorphic

tendencies in Pakistani bodybuilders.

Subjects and Methods

The cross-sectional study was conducted in Lahore, Pakistan, from June to September 2017. After getting approval from the institutional ethics review committee of Department of Clinical Psychology, UMT Lahore, the sample size was determined using G-power formula, multiplying all items of scales used by 3.[12] The sample was raised using non-random purposive sampling technique from among male bodybuilders in an age range of 18-32 years who had been using the gym regularly for at least 2 years while not having participated in any bodybuilding competition. Those with a history of depression and bulimia nervosa and those using any anti-psychotic drugs were excluded.

After taking informed consent from the subjects, demographic data, including age, height, weight, marital status, level of education, years of training and involvement in any other physical activity, was noted. Further data was collected using the indigenously developed Drive for Muscularity Inventory (DMI)[13] and the adult version of Body Dysmorphic Disorder factors of the Yale-Brown Obsessive Compulsive Scale (BDD-YBOCS).[1] The DMI has strong psychometric properties (r=0.89) with 28 items that are further divided into two factors comprising the theme of different behavioural acts in order to increase the muscles of the body and the different thoughts and desires towards having a muscular body. BDD-YBOCS, used to measure MD tendencies, had 12 item scored on a 4-point Likert scale. It has strong internal consistency (r=0.92) and test-retest reliability (r=0.93).[1] Permission was obtained from the authors of the psychometric scales and from the administrations of different gyms to collect data from the bodybuilders. The tests were administered during face-to-face interviews.

Data was analysed using SPSS 21. Descriptive data was presented as percentages and frequencies, while inferential statistics comprised correlational analysis, and t-test was used to assess differences among the variables.

Results

Of the 211 subjects with a mean age of 26.25±5.946 years, 118(55.9%) were aged 18-25 years and 93(44.1%) were aged 26-32 years. In terms of body mass index (BMI), 172(81.5%) subjects had it within the healthy range. Also 184(87.2%) participants had postgraduate level of education, and 143(67.8%) were unmarried. DMI data showed normal distribution within the range of ±3 on kurtosis. Overall, 29(13.7%) participants had mild DM, 132(62%) moderate and 50(23.7%) had severe DM. Further, 123(58.3%) subjects had severe MD tendencies, 45(21.3%) moderate, and 22(10.4%) had a mild level.

There was significant positive relationship between certain DMI and BDD-YBOCS factors, indicating that the bodybuilders with more DM had more chances of having MD tendencies (Table-1).

Age (Table-2) and marital status (Table-3) showed significant differences (p<0.05).

Table-1: Mean (M), Standard deviation (SD) and Pearson correlation (p) values on Drive for Muscularity Inventory (DMI) and Body Dysmorphic Disorder Modification factor of the Yale-Brown Obsessive Compulsive Scale (BDD-Y-BOCS) of the participants (N= 211).

Factors	FI: DMI	FII: DMI	FI: BDD- YBOCS	FII: BDD- YBOCS	TF: DMI	TF: BDD- YBOCS
FI: DMI	-	.82**	.62**	.64**	.96**	.64**
FII: DMI	-	-	.58**	.58**	.94**	.58**
FI: BDD- YBOCS	-	-	-	.96**	.63**	.99**
FII: BDD- YBOCS	-	-	-	-	.64**	.98**
TF: DMI	-	-	-	-	-	-
TF: BDD- YBOCS	-	-	-	-	-	-
M	29.19	28.81	16.2	12.5	58.0	
(SD)	(8.38)	(6.65)	(8.57)	(6.71)	(14.3)	

**p<0.01, FI: DMI: Behaviours, FII: DMI: Thoughts, FI: BDD-YBOCS: Behaviours and thoughts, FII: BDD-YBOCS: Avoidance and psychological symptoms, TF: DMI: Total factors of DMI, TF: BDD-YBOCS: Total factors of BDD-YBOC.

Table-2: Comparison of age with drive for muscularity (N=211).

Variable	Age Category				t	p<	95% CI		Cohen'sd
DMI	18-25 n=93		26-32 n=118						
	M	SD	M	SD			LL	UL	
	62.7	13.8	52.0	12.7	0.78	0.001***	8.7	16.2	0.80

DMI: Drive for Muscularity M: Mean, SD: Standard deviation, df=209, *** p<0.001.

Table-3: Comparison of marital status on drive for muscularity (N=211).

Variable	Marital Status				t	p<	95% CI		Cohen'sd
DMI	Married n=68		Unmarried n=143						
	M	SD	M	SD			LL	UL	
	56.1	12.6	66.5.0	15.07	0.13	0.001***	6.2	14.5	0.74

DMI: Drive for Muscularity, M: Mean, SD: Standard deviation, df=209, *** p<0.001.

Discussion

Studies have examined the desire to be more muscular in men,[14] but not much research has been done in Pakistan in this context. The current study was conducted to fill the gap, and results reflected the presence of both DM and MD tendencies in the local population. These findings are an alarming sign regarding the mental health of men.[15] The current study supported the findings that individuals in early adulthood have more DM than in late adulthood.[16] Younger men are more concerned about their physical appearance as it is a time of pubertal and hormonal changes as well as different socialisation patterns and social identities. All this motivates them to indulge in muscular growth by engaging in body change strategies, such as the use of supplements and exercising.[17] One study also made similar conclusions.[18] The married males are in a stage of life where they have already achieved identity and intimacy and as such, the drive for muscularity might possibly also get less in such individuals[8] which was also the finding of the current study. These negative effects can also be the consequence of the influence of social media.

In the light of the findings of the current study, there is a need to conduct more studies on MD in comparison with other variables to know DM aetiology in the new generation. Female population should also be studied as the number of gyms for women is also increasing.

Conclusion

The drive for muscularity was found to be prevalent in Pakistani men who are becoming victim of the current trends of being more muscular and having a desire to acquire the 'V-shaped' body.

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Conflict of Interest: None.

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References

1. Phillips KA, Hollander E, Rasmussen SA, Aronowitz BR, DeCaria C, Goodman WK. A severity rating scale for body dysmorphic disorder: development, reliability, and validity of a modified version of the Yale-Brown Obsessive Compulsive Scale. Psychopharmacol Bull 1997;33:17-22.
2. Johansson T, Andreasson J. The Web of Loneliness: A Netnographic Study of Narratives of Being Alone in an Online Context. Soc Sci 2017;6:101. doi: 10.3390/socsci6030101
3. McCreary DR, Saucier DM. Drive for muscularity, body comparison, and social physique anxiety in men and women. Body Image 2009;6:24-30. doi: 10.1016/j.bodyim.2008.09.002.
4. Helgeson VS. Prototypes and dimensions of masculinity and femininity. Sex Roles 1994;31:653-82. Doi: 10.1007/BF01544286
5. Sandhu JS, Kishore S, Shenoy S, Randhawa HS. Muscle Dysmorphia and Personality Trait: ASignificant Link in Bodybuilders. J Postgrad Med Edu Res 2013;47:77-82.
Nieuwoudt JE, Zhou S, Coutts RA, Booker R. Muscle dysmorphia: Current research and potential classification as a disorder. Psychol Sport Exerc 2012;13:569-77.
7. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®), 5th ed. Washington, USA: American Psychiatric Publishing; 2013.
8. Mosley PE. Bigorexia: bodybuilding and muscle dysmorphia. Eur Eat Disord Rev 2009;17:191-8. doi: 10.1002/erv.897.
9. Robert CA, Munroe-Chandler KJ, Gammage KL. The relationship between the drive for muscularity and muscle dysmorphia in male and female weight trainers. J Strength Cond Res 2009;23:1656-62. doi: 10.1519/JSC.0b013e3181b3dc2f.
10. Chen X, Rubin KH, Li ZY. Social functioning and adjustment in Chinese children: A longitudinal study. Dev Psychol 1995;31:531-9.
11. Bunker LN, Gwalani M. Narcissism, Body-Esteem and Selfie-taking behaviour among Teens and Adolescents. Int J Res Anal Rev 2018;5:391-5.
12. Howitt D, Cramer D. Understanding Statistics in Psychology with SPSS, 7th ed. Harlow, United Kingdom: Pearson Education Limited, 2017; pp 591-2.
13. Tod D, Edwards C, Cranswick I. Muscle dysmorphia: current insights. Psychol Res Behav Manag 2016;9:179-88. doi: 10.2147/PRBM.S97404.
14. Boroughs MS, Krawczyk R, Thompson JK. Body dysmorphic disorder among diverse racial/ethnic and sexual orientation groups: Prevalence estimates and associated factors. Sex Roles 2010;63:725-37. doi: 10.1007/s11199-010-9831-1
15. Cafri G, Thompson JK, Ricciardelli L, McCabe M, Smolak L, Yesalis C. Pursuit of the muscular ideal: Physical and psychological consequences and putative risk factors. Clin Psychol Rev 2005;25:215-39. doi:10.1016/j.cpr.2004.09.003
16. Erikson EH. Youth: Change and challenge, 2nd ed. New York, USA: Basic Books; 1963.
17. Maida DM, Armstrong SL. The Classification of Muscle Dysmorphia. Int J Men's Health 2005;4:73-91.
18. Akhvlediani M, Moralishvili S. Measuring Happiness of Akaki Tsereteli State University Pedagogy Department Students. In: 15th International Conference on Social Sciences. Leuven, Belgium: [Online] 2018 [Cited 2021 February 28]. Available from URL: https://euser.org/icss15en/forum/thread.php?code=564D7A511581E21B.