

Acne Disability, Self Management and Help-Seeking Behaviour among Medical Students

LEELAVATHI M, TAN HC, PUAH JWD, APIPI M, SOHAMI AE,
MAHAT NF

Department of Family Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia.

ABSTRAK

Jerawat merupakan masalah kulit yang dapat menjejaskan penampilan peribadi dan mengugat kualiti hidup seseorang. Satu kajian keratan rentas di kalangan pelajar-pelajar perubatan di Universiti Kebangsaan Malaysia telah dijalankan selama 12 bulan. Kajian ini bertujuan untuk mengenalpasti impak jerawat pada kualiti hidup, pengurusan diri dan cara-cara mengatasi masalah jerawat yang diamalkan oleh pelajar perubatan. Seramai 361 pelajar telah dipilih dengan menggunakan kaedah kluster berstrata persampelan rawak. Masalah jerawat telah digredkan dengan menggunakan Comprehensive Acne Severity Score (CASS), manakala impak jerawat pada kualiti hidup diukur dengan menggunakan Cardiff Acne Disability Index (CADI). Kaedah mengatasi masalah dan mendapatkan bantuan untuk masalah jerawat diukur dengan menggunakan Acne Management Questionnaire. Purata markah CADI adalah 3.35 ± 2.39 , dengan impak yang rendah (83.8%, n=206) dan sederhana (14.6%, n=36) pada kualiti hidup. Pelajar perempuan dan pelajar dari kumpulan etnik bukan Melayu menunjukkan kadar impak kualiti hidup yang lebih tinggi (3.76 ± 2.24 , $p=0.006$ dan 3.79 ± 2.59 , $p=0.018$). Walaupun majoriti pelajar (87.4%, n=215) tahu bahawa jerawat boleh dirawat, mereka lebih gemar membincangkan masalah jerawat mereka dengan rakan-rakan (54.1%, n=133) daripada berunding dengan doktor (9.3%, n=23). Kajian ini menunjukkan bahawa pelajar memiliki jerawat gred yang rendah dan impak pada kualiti hidup adalah ringan. Walau bagaimanapun, usaha perlu ditingkatkan untuk menambahkan pengetahuan mereka mengenai pengurusan masalah jerawat dan membantu mengubah cara penyelesaian masalah kesihatan mereka. Langkah ini dapat membantu mengurangkan komplikasi akibat jerawat seperti parut, yang boleh menjejaskan kualiti hidup golongan bakal doktor ini.

Kata kunci: jerawat, kualiti hidup, pelajar perubatan, pengurusan diri

Address for correspondence and reprint requests: Dr. Leelavathi Muthupalaniappen, Department of Family Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia. Tel: +603-91456123 Fax: +603-91456680 Email: drleelaraj@gmail.com

ABSTRACT

Acne can affect personal appearance and impair quality of life. A cross sectional study, over a period of 12 months was conducted among medical students at Universiti Kebangsaan Malaysia to evaluate the disability, self management and help-seeking behaviour of medical students for acne. A total of 361 students were selected using stratified cluster random sampling. Acne was graded using the Comprehensive Acne Severity Score (CASS) while acne disability was assessed using the Cardiff Acne Disability Index (CADI). Acne self management and help-seeking behaviour was assessed using the acne management questionnaire. Mean CADI score was 3.35 ± 2.39 , with mostly mild (83.8%, n=206) and moderate (14.6%, n=36) levels of impairment. Female students and those from the non-Malay ethnic group demonstrated higher disability (3.76 ± 2.24 , $p=0.006$ and 3.79 ± 2.59 , $p=0.018$, respectively). Although the majority of students (87.4%, n=215) knew that acne can be treated, they preferred to discuss their acne problems with friends (54.1%, n=133) rather than consulting a physician (9.3%, n=23). Most of them also practiced non-evidence based measures for their acne. The results of the present study shows that young adults tend to have mild grades of acne severity and disability. However, efforts are needed to enhance their knowledge on evidence based management of acne and modify their help seeking behavior. This would help reduce complications such as permanent scars and improve quality of life, as acne is a treatable dermatological disorder.

Keywords: acne vulgaris, medical, disability, quality of life, students, severity, self care

INTRODUCTION

Acne is a common skin disorder which has great impact on individuals as it affects physical appearance, psychological function and impairs quality of life. (Katsambas & Lotti 2003; Koo 1995). Even the mild grade of acne may affect function and diminish quality of life (Lasek & Chren 1998; Picardi et al. 2000). Although specific treatment for acne is available, self-management is often the first step taken to overcome acne problems. Products such as facial cleansers, peeling agents, creams, and oral contraceptive for female are some of the favourites. (Lasek & Chren 1998;

Goncalves et al. 2012). Other measures include increased water intake, using non-prescriptive topical agents and squeezing acne lesions (Ali et al. 2010).

It is a common assumption that medical students would be more inclined to get themselves treated as they have the knowledge about medical conditions and the access to treatment facilities. Yet, how many of these future doctors actually seek treatment and how acne impacts their life remains a mystery. The aim of the present study was to assess disability, self management and help-seeking behaviour for acne among medical students.

MATERIALS AND METHODS

This study was approved by the Universiti Kebangsaan Malaysia Ethics Committee.

A cross sectional study was conducted over a period of 12 months, at the Universiti Kebangsaan Malaysia (UKM), Kuala Lumpur. Medical students from academic years 1 to 5 were selected using stratified cluster random sampling. A total of 400 medical students were invited to participate and 361 consented. Participants were recruited through short message services (SMS), phone calls and social network. Students were assessed for acne severity using Comprehensive Acne Severity Score (CASS). This is a validated acne grading system to assess acne severity on the face, chest and back using scores ranging from 0 to 5: Score 0 (Clear), score 1 (almost clear), score 2 (mild), score 3 (moderate), score 4 (severe) and score 5 (very severe). Score of 0 is considered as absence of acne while scores 1 to 5 as presence of acne (Tan et al. 2007).

Students diagnosed with acne were given the Cardiff Acne Disability Index (CADI) and Acne Management Questionnaire. CADI is a 5 item questionnaire, used for measuring the quality of life among teenagers and young adults with acne (Motley & Finlay 1992). These questions assess the impact of acne over the last month:

a) *Emotional disability:*

Question 1 (As a result of having acne, during the last month have you been aggressive, frustrated or embarrassed?)

b) *Social disability:*

Question 2: (Do you think that having acne during the last month interfered with your daily social life, social events or relationship with members of the opposite sex?) and question 3 (During the last month have you avoided public changing facilities or wearing swimming costumes because of your acne?)

c) *Feelings on appearance:*

Question 4 (How would you describe your feelings about the appearance of your skin over the last month?)

d) *Perceived severity:*

Question 5 (Please indicate how bad you think your acne is now)

For each question, there were four response categories assigned to scores ranging from 0 to 3 scores with a minimum total score of 0 and a maximum of 15. A total score of 0 to 5 was classified as mild disability, scores 6 to 10 as moderate disability, while 11 to 15 as severe disability.

The Acne Management Questionnaire was used to assess student's self-management and help seeking behavior. This is a self-administered questionnaire containing a total of six questions. Each question had few answer options and a blank space for any additional information (Smithard et al. 2001).

a) *Self-perception on acne*

(Question 1: Do you think you have acne at the moment?)

b) *Acne self-treatment* (Question 2: Have you ever done any of the following to improve the appearance of your skin? (List of options provided) & Question 3: Do you apply any lotion or cream to help prevent spots?)

c) *Help-seeking behavior* (Question 4: Who do you talk to about any problems you may have with the spots? & Question 6: Do you seek help if you had acne?)

d) *Knowledge on acne* (Question 5: Do you think acne is a condition that can be cured?).

DATA ANALYSIS

Statistical Package for Social Sciences (SPSS, version 20.0) was used for data analysis. Descriptive statistics were used to analyze frequency, percentage, means, and standard deviation of the appropriate variables. Student T test was used to determine association between gender, ethnicity and CADI; Pearson Chi-square was used to determine association between help-seeking behaviour, gender and ethnicity. Significance set at $p > 0.05$ and confidence level (CI) of 95%, spearman correlation was used to determine association between CADI and CASS.

RESULTS

A total of 361 students completed clinical examination, CADI and acne management questionnaires. Acne prevalence was 68.1% (n=246). The assessment of acne severity using the CASS revealed that majority (55.7%,

Table 1: Cardiff Acne Disability Index (CADI) of medical students

CADI (Score)	% (N=246)
Mild disability (0-5)	83.8 (206)
Moderate disability (6-10)	14.6 (36)
Severe disability (11-15)	1.6 (4)
Domains	Mean scores \pm SD
Emotion	0.71 \pm 0.76
Social functioning	0.48 \pm 0.69
Social avoidance	0.20 \pm 0.51
Feeling about appearance	1.05 \pm 0.77
Perceived severity	0.91 \pm 0.68
Mean total score	3.35 \pm 2.39

n=137) had almost clear skin followed by mild (35.0%, n=86), and moderate (7.7%, n=19) grades of acne. Only a small percentage (1.6%, n=4) had severe acne while none of them had very severe acne. Male to female to female ratio was 1:1.1.

The mean CADI disability score was 3.35 ± 2.39 . The levels of impairment were mostly mild (83.8%, n=206) followed by moderate (14.6%, n=36) and severe (1.6%, n=4). Feeling about appearance domain had the highest mean scores (1.05 ± 0.77) (Table 1). Females had significantly higher disability scores compared to males (3.76 ± 2.24 , $p=0.006$) especially in the domain of appearance (1.20 ± 0.72 , $p=0.001$) and perceived severity (1.09 ± 0.64 , $p < 0.05$). Students from the Non-Malay ethnic group also had significantly higher mean disability compared to the Malay ethnic group (3.79 ± 2.59 , $p=0.018$) (Table 2). There was no correlation between CADI and CASS for all grades of acne severity.

Among students with acne, majority (84.6%, n=208) correctly identified

Table 2: Association between acne disability (CADI) with gender and ethnicity

Variable	Gender (Mean score)		p value	Ethnicity (Mean score)		p value
	Male	Female		Malay	Non-Malay	
Mean score	2.92 ± 2.47	3.76 ± 2.24	0.006	3.06 ± 2.20	3.79 ± 2.59	0.018
Domains						
Emotion	0.64 ± 0.72	0.78 ± 0.79	0.145	0.68 ± 0.75	0.75 ± 0.76	0.492
Social functioning	0.49 ± 0.70	0.48 ± 0.68	0.936	0.43 ± 0.62	0.57 ± 0.78	0.144
Social avoidance	0.18 ± 0.52	0.20 ± 0.49	0.759	0.17 ± 0.50	0.24 ± 0.52	0.294
Feeling about appearance	0.89 ± 0.79	1.20 ± 0.72	0.001	0.96 ± 0.74	1.20 ± 0.79	0.018
Perceived severity	0.71 ± 0.67	1.09 ± 0.64	0.000	0.82 ± 0.68	1.04 ± 0.66	0.012

themselves to have this condition however 15.4% (n=38) of students perceived that they did not have acne. Regarding the self management of their acne, students washed their face more often (73.2%, n=180) while 72.4% (n=178) drank more water. Most students 87.4% (n=215) knew that acne can be cured. However, about 12.6% (n=31) were unsure or did not know that acne can be treated. Almost half of the students (54.1%, n=133) with acne preferred talk to friends about this problem, while only 9.3% (n=23) preferred to consult physicians. Although medical students had acne, they were not keen to seek help for their condition as they did not perceive it as a problem (43.9%, n=108) (Table 3). Female students preferred to seek help from siblings (70.3%, $p < 0.05$) while males preferred consults doctors (69.6%, $p = 0.033$) (Table 4).

DISCUSSION

Acne impairs quality of life and this has been well established in the literature (Law et al. 2009; Kokandi 2010). The impact of acne on medical students

in addition to their academic and professional stress may further impair the emotional and mental stability of these future doctors.

The disability caused by acne among medical students in this study is categorized as mild with the mean CADI score of 3.35 ± 2.39 . This was similar to a study among university students in Hong Kong (mean CADI score of 2.56, Lasek & Chren 1998). This is possibly due to the fact that most of these students have less severe acne and did not actually seek treatment for acne. The disability of acne is expected to be higher among those who seek treatment for acne. This was shown in a recent study by Yap where acne disability was found to be higher 5.1 ± 3.83 , (Yap 2012). The current study also did not demonstrate any correlation between CADI and acne severity. It is postulated that patients seeking treatment for acne would have more disability compared to those who don't. A study in Hong Kong showed significant association between acne severity and impairment for those with mild but not for those with moderate or severe acne.

Table 3: Acne self management and help-seeking behavior of medical students

Acne management & help-seeking behavior	% (N=246)
Perception of having acne	
Yes	84.6 (208)
No	15.4 (38)
Acne management*	
Wash face more often	73.2 (180)
Drink more water	72.4 (178)
Applied lotion/cream	29.7 (73)
Changed diet	28.9 (71)
Use concealer	16.3 (40)
Knowledge	
Acne can be cure	
Yes	87.4 (215)
No	2.8 (7)
Don't know	9.8 (24)
Help Seeking Behaviour*	
Person to talk to	
Friend	54.1(133)
Parent	34.1(84)
Sibling	30.1(74)
Doctors	9.3 (23)
Beautician	7.3 (18)
Pharmacist	4.5 (11)
Seeks help & the preferred source of help*	
Yes	
Dermatologist	39.8 (98)
Pharmacist	19.9 (49)
Doctors	10.6 (26)
Doctors	9.3 (23)
Traditional healer	2.0 (5)
Other	6.1 (15)
No	
Not consider as problem	60.2 (148)
Shy	43.9 (108)
No treatment	4.5 (11)
No treatment	1.6 (4)
Other than those above	7.3 (18)

*Students were allowed to select more than one option

Female students in this study report greater disability due acne especially regarding their perceived severity and feeling about their appearance

Table 4: Help-seeking behavior of male and female medical students with acne

Help Seeking Behaviour	Gender %(n)		χ^2	p value
	Male	Female		
Person to talk				
Friend	44.4 (59)	55.6 (74)	1.867	0.172
Parent	40.5 (34)	59.5 (50)	3.186	0.074
Sibling	29.7 (22)	70.3 (52)	14.73	0.000
Doctors	69.6 (16)	30.4 (7)	4.562	0.033
Beautician	27.8 (5)	72.2 (13)	3.299	0.069
Pharmacist	45.5 (5)	54.5 (6)	0.039	0.843
Seek help				
Yes	43.9 (43)	56.1 (55)	1.319	0.251
Dermatologist	44.9 (22)	55.1 (27)	0.296	0.586
Pharmacist	30.8 (8)	69.2 (18)	3.608	0.058
Doctors	56.5 (13)	43.5 (10)	0.674	0.412
Traditional healer	40.0 (2)	60.0 (3)	0.143	0.705
No	51.4 (76)	48.6 (72)	1.319	0.251
Not consider a problem	54.6 (59)	45.4 (49)	3.017	0.082
Shy	45.5 (5)	54.5 (6)	0.039	0.843
No treatment	25.0 (1)	75.0 (3)	0.890	0.346

compared to males. Earlier studies depict a controversy between disabilities and gender (Law et al. 2009; Yap 2012). Different age groups probably relate to acne differently with young adults being more concern with appearances as they are at the stage of life where they form new relationships. This study also showed that the non-Malays report greater disability compared to the Malay ethnic group which suggests that different cultural believes and tolerance for disorders affects the overall perception of their appearance.

Most of the medical students in this study correctly identified the fact that they had acne however a small percentage (15.4%) denied having acne implying that they may either be in denial or may not recognize acne. Same

result was reported among Australian school students but the earlier study subjects were school students. Hence, they may lack the knowledge regarding acne (Kilkenny et al. 1998).

Surprisingly about 12.6% of medicals students were not aware that acne can be treated. This is contrary to the general expectation that medical students would be more concern about medical disorders relevant to them. In fact, only a small percentage of them stated that they would consult a physician for their acne while others would seek non-formal sources of treatment. They tend to self manage their acne by washing their face more often (73.2%) and drinking more water (72.4%) although none of these measures have been shown to be effective based on the

available evidence. A few other studies have also shown that that drinking water was believed to improve the appearance of skin (Smithard et al. 2001; Suh et al. 2008).

When seeking for help, most students choose to talk about their acne problem with their friends (54.1%), parent (34.1%) and siblings (30.1%) rather than consulting a doctor, despite the waiver on consultation and treatment fee. Students preferred to share their problems based on familiarity rather than seeking actual professional help such as doctors although they are in the same environment. This could be due to the lack concern for acne as almost half of them did not consider acne as a problem (43.9%). Other studies also reported similar findings (Cheng et al. 2010; Tan et al. 2007).

The overall help-seeking behaviour of medical students for their acne is acceptable. However, it requires modification as acne is a treatable condition. Delay or deferring adequate treatment may result in unnecessary complications such as scarring (Newton et al. 1997). Hence, awareness regarding acne and its management needs to be promoted to prevent permanent scarring and disfigurement.

The limitation of this study includes the possible discrepancy in grading acne severity among the researchers, although they received hands-on training on diagnosing acne and using the CASS. Another limitation is that participants with severe acne in the past may have consulted a physician however this information would not be captured as the participants were assessed on their current status.

CONCLUSION

This study shows that a high percentage of young adults are affected by acne. However, this study failed to demonstrate any relationship between acne severity and quality of life. Although the overall impact of acne on quality of life is mild, it has greater implication on females and the Non-Malay ethnic group suggesting that this group may require screening and proactive management for acne. The lack of knowledge regarding acne and its management among the medical students may be addressed during their medical training in dermatological disorders. Strengthening their knowledge on evidence based management may be able provide them the confidence that acne can be treated effectively. Their help-seeking behavior for acne requires modification as the opportunity for consultation and treatment are easily accessible for medical students. Adequate treatment can prevent permanent scars which may affect quality of life of these future doctors. The reluctance for a formal consultation and treatment among medical students requires further evaluation and a qualitative design study could be more informative.

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