

The Effect of Parental Rearing Patterns on Sexual Mental Health among Medical College Students

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Abstract Objective To explore the current status of medical college students' sexual mental health and parental rearing patterns, and analyze the impact of parental rearing patterns on medical students' sexual mental health.

Methods A total of 816 medical undergraduates in Guangdong Province were selected by stratified random sampling. They were investigated with Sexual Mental Health Questionnaire for Adolescent (SMHQA) and Egma Minnen av Barddosnauppforstran (EMBU). **Results** First, the total score of SMHQA and the scores of sexual cognition, sexual values and sexual adaptation were (3.26 ± 0.28) , (2.92 ± 0.38) , (2.19 ± 0.31) and (4.50 ± 0.43) respectively. The scores of fathers' emotional warmth and understanding, mothers' emotional warmth and understanding, fathers' over protection, mothers' over intervention and over protection are all greater than 2.0 and less than 2.8; The scores of other dimensions of EMBU are less than 2.0. Second, except fathers' and mothers' excessive preference, all other dimensions of EMBU were significantly correlated with the total score of SMHQA and the scores of three dimensions (all $p < 0.01$). Third, the results of multiple stepwise linear regression showed that fathers' and mothers' warmth and understanding were positively related with the total score of SMHQA ($\beta = .277, .467$; All $P < 001$), and the scores of four dimensions of fathers' severe punishment, fathers' excessive interference, fathers' refusal and denial and fathers' excessive protection were negatively related to the total score of SMHQA ($\beta = -.336 \sim -.644$, all $P < .05$). **Conclusion** The sexual mental health of medical college students needs to be improved, and parental rearing patterns may be an important factor affecting the sexual mental health of medical college students.

Keywords Medical College Students; Sexual Mental Health; Parental Rearing Style; Influenced Factors; Multiple Stepwise Linear Regression

Under the influence of information globalization and Western sexual concepts, college students' sexual openness is getting higher and higher, and the incidence of unsafe sexual behavior is increasing year by year, which has brought a great negative impact on college students' physical and mental health. The sexual mental health of college students has increasingly attracted the attention of all sectors of society.

Sexual mental health [1] is a balanced unity of mental health and sexual behavior health, which means that individuals have normal sexual desire, can correctly understand the problems related to sex, and have strong sexual adaptability, can properly communicate with the opposite sex, and can make sex improve their personality and promote their physical and mental health.

The sexual mental health of college students includes three parts: sexual cognition, sexual attitude and sexual behavior. Sexual cognition refers to whether an individual has knowledge about sex and whether the knowledge is accurate and abundant; Sexual attitude refers to the openness, pleasure, sense of responsibility, sense of morality and legal consciousness towards sex. Sexual attitude affects individuals' attention to sexual objects, the processing of sexual information and their response to sexual information. Sexual behavior is related to sexual experience and sexual satisfaction, including sexual orientation and sexual satisfaction [2].

Sexual mental health is closely related to individual physical structure, physiological function, psychological quality and social adaptation [1]. So, there are many factors that affect sexual mental health. One is the physical quality of parents. To a large extent, genes and embryonic development determine the physical and mental status. Another is the sense of responsibility and self-control ability. The other is social atmosphere and family upbringing.

According to the ecosystem theory of Bronfenbrenner (1986) [3], family, as a micro system, has the most direct impact on individuals. Among family factors, the influence of parental rearing patterns is crucial. Parenting style is a combination of parents' feelings, parenting ideas and parenting behaviors for their children, that is, in the process of parenting, parents will not only affect children through their expressed ideas, attitudes and behaviors, but also affect children through their unconscious nonverbal information and emotional expression. Parental rearing patterns reflect the essence of parent-child interaction and have cross situational stability [4].

As the most important persons close to students, parents' upbringing style will have a wide and far-reaching impact on their children's behavior, attitude, cognition, emotion, personality and other aspects [5-9].

As far as sexual mental health is concerned, the role of parents can not be ignored. Li Wenhui et al. [10] found that in terms of the effect of acquiring sexual knowledge, 18.9% of college students believe that the most useful and most frequently used way is parental education. However, there is no domestic report on the overall impact of parental rearing patterns on the sexual mental health of children.

At the university stage, the pressure of learning, interpersonal, employment and other aspects has increased sharply, but due to the influence of psychological closeness, mental problems are not easy to be solved in time, coupled with the influence of Western sexual concepts, college students are easy to take sexual activities as a way to relax and entertainment, resulting in various sexual mental health problems [11-12]. Medical college students know more about sexual physiology than students of other majors, but knowledge about sexual mental health is still very scarce. Because they are exposed to more physiological knowledge, they are easy to restore sex to simple physiological activities, resulting in a more open sexual attitude and a more relaxed sexual morality [13-14]. It can be seen that the sexual mental health of medical students needs to be strengthened.

The purpose of this study is to explore the current status of medical students' sexual mental health and parental rearing patterns, and analyze the impact of parental rearing patterns on medical college students' sexual mental health, and provide reference for sexual mental health education in medical colleges.

I. Objects and Methods

1.1 Objects

A total of 900 questionnaires were distributed to medical undergraduates from freshmen to the fifth year from Guangdong Medical University, Southern Medical University, Medical School of Guangzhou University, Medical School of Sun Yat sen University, Medical School of Jinan University, Guangzhou University of Chinese Traditional Medicine and Guangdong Pharmaceutical University by random sampling. 816 valid questionnaires were collected, and the effective rate was 90.67%. Among them, there were 390 boys and 426 girls; 180 freshmen, 197 sophomores, 174 juniors, 153 seniors and 112 fifth year students; 107 only children and 709 non only children.

1.2 Tools

1.2.1 Egma Minnen av Bardndosnauppforstran, EMBU

It is compiled by C. Perris et al. (1980) [15], and revised Yue Dongmei et al. (1993) [16] into Chinese version. EMBU is composed of the fathers' upbringing style subscale and the mothers' upbringing style subscale. The father's upbringing style subscale contains 58 items, which are divided into six dimensions: emotional warmth and understanding (FWU), punishment and severity (FP S), excessive interference (FEI), excessive preference (FEP), refusal and deny (FRD), and overprotection (FOP); The mothers' rearing style subscale contains 57 items, which are divided into five dimensions: emotional warmth and understanding (MWU), excessive interference and protection (MEIP), refusal and deny (MRD), punishment and severity (MPS), and excessive preference (MEP). The Likert 4-point scoring method is used to score from 1 to 4 points corresponding to "never" to "always". The higher the score, the stronger the tendency in this dimension (item). In this study, the Cronbach 'a coefficient of the total table is 0.843, and the Cronbach's a coefficient of each dimensions is 0.719-0.778.

1.2.2 Sexual Mental Health Questionnaire for Adolescent, SMHQA

It is compiled by Luo Yi et al. (2005) [17]. SMHQA has 46 questions (including 4 pairs of lie detection questions) which are divided into three dimensions: sexual cognition (SC), sexual values (SV) and sexual adaptation (SA). The Likert 5-point scoring method is adopted to score from 1 to 5 points corresponding to "completely non-conforming" to "completely conforming". The higher the score, the stronger the tendency in this dimension (item). In this study, the Cronbach's a coefficient of the total table is 0.809, and the Cronbach's a coefficients of each dimension is 0.741-0.767.

1.3 Data Processing

SPSS20.0 software is used to analyze the valid data. Descriptive statistics is used to calculate the average score and standard deviation on each scale; Pearson product-moment correlation coefficient, independent sample t-test and one-way ANOVA are used to explore the correlations between variables; Multiple stepwise linear regression is used to analyze the main related factors of the total score of SMHQA.

II. Results

2.1 Current Status of Parental Rearing Patterns and Sexual Mental Health of Medical Students

It can be seen from table 1 that the total score and score of sexual cognition score of SMHQA are greater than 2.5 and less than 3.5, belonging to the medium level; The score of sexual values is less than 2.5, belonging to the low level; The score of sexual adaptation is greater than 3.5, which belongs to the high level. The scores of fathers' emotional warmth and understanding, mothers' emotional warmth and understanding, fathers' over protection, mothers' over interference and over protection are all greater than 2.0 and less than 2.8, belonging to the medium level; The scores of other 8 dimensions of EMBU are less than 2.0, belonging to the low level.

Table 1 Descriptive statistics of total score and dimension (subscale) scores of each scale (n =816)

Dimension	Min	Max	M	SD	Number of items	Average score of items	Standard deviation of each item
Father's warmth and understanding	26	73	49.23	9.47	19	2.59	0.51
Father's punishment and severity	5	30	17.44	4.73	12	2.51	0.41
Father's excessive interference	6	33	18.60	5.14	10	1.87	0.52
Father's excessive preference	0	18	8.49	4.22	5	1.71	0.86
Father's refusal and denial	1	17	8.93	3.30	6	1.49	0.56
Father's overprotection	4	20	12.42	2.81	6	2.08	0.47
Mother's warmth and understanding	29	69	49.92	8.85	19	2.64	0.48
Mother's excessive interference and overprotection	16	48	32.06	6.35	16	2.02	0.41
Mother's refusal and denial	3	23	12.52	3.71	8	1.57	0.54
Mother's punishment and severity	3	22	12.79	3.76	9	1.44	0.56
Mother's excessive preference	0	20	8.36	4.11	5	1.83	0.83
Sexual cognition	21	42	32.13	4.16	11	2.92	0.38
Sexual values	21	45	32.91	4.60	15	2.19	0.31
Sexual adaptation	9	28	71.98	6.76	16	4.50	0.43
Sexual mental health	19	47	136.92	11.88	42	3.26	0.28

2.2 Correlation Analysis of EMBU and SMHQA Scores

It can be seen from table 2 that except the fathers' excessive preference and mothers' excessive preference, other 9 dimensions of EMBU are significantly correlated with the total score of SMHQA and the scores of three dimensions ($r=.201$ to $.334$, all $P < 0.01$).

Table 2 Pearson Correlation Analysis of EMBU and SMHQA Scores (r)

	F1	F2	F3	F4	F5	F6	M1	M2	M3	M4	M5
C	.255**	-.202**	-.223**	.056	-.238**	-.219**	.281**	-.209**	.246**	-.259**	.060
V	.275**	-.233**	-.230**	.036	-.321**	-.265**	.334**	-.243**	-.282**	-.243*	.037
A	.210**	-.308**	-.201**	.062	-.270**	-.229**	.231**	.203**	-.257**	-.284**	.057
SH	.254**	-.246**	-.214**	.048	-.266**	-.235**	.287**	-.218**	-.273**	-.261**	.047

Note: * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

2.3 Regression Analysis of Parental Rearing Patterns and Sexual Mental Health of Medical Students

Taking the total score of SMHQA as the dependent variable and the score of each dimension of EMBU as the independent variables, a multiple stepwise linear regression analysis is carried out within the 95% confidence interval. The results are shown in Table 3.

It can be seen from table 3 that the scores of fathers' warmth and understanding and mothers' warmth and understanding are positively correlated with the total score of SMHQA ($\beta=.277$, $.467$; All $P < 0.01$), and the scores of the following 4 dimensions such as fathers' punishment and severity, fathers' excessive interference, fathers' refusal and denial and fathers' excessive protection are negatively related to the total score of SMHQA ($\beta=-.336$ to $-.644$, all $P < 0.05$).

Table 3 Multiple Stepwise Linear Regression Analysis of the Relationship between the scores of EMBU Dimensions and SMHQA Total Score

Dependent variable	Independent variables	B	SE	β	t value	P value	R^2	R_{adj}^2
SMHQA	FWU	.346	.066	.277	8.191	<.001	.507	.502
Total score	FPS	-.722	.151	-.644	-4.403	<.001		
	FEI	-.563	.164	-.399	-2.917	.005		
	FRD	-.638	.132	-.518	-5.668	<.001		
	FOP	-.454	.096	-.336	-4.375	<.001		
	MWD	.609	.083	.467	7.713	<.001		

III. Discussion

This study found that the total score of SMHQA and the scores of sexual cognition of medical college students are at a medium level; The score of sexual values is at a low level; The score of sexual adaptation is on the high side; The scores of fathers' emotional warmth and understanding, mothers' emotional warmth and understanding, fathers' over protection, as well as mothers' over intervention and protection are at a medium level; The scores of other 8 dimensions of EMBU are at a low level. The above scores are consistent with the results of previous studies [14, 17-21], suggesting that medical college students have a good sexual adaptation, but their sexual awareness and values need to be improved; The parenting style is more democratic and the parent-child relationship is more harmonious.

Multiple stepwise linear regression analysis shows that such two factors as fathers' warmth and understanding and mothers' warmth and understanding, are positively correlated with the total score of SMHQA, and the four factors, including fathers' punishment and severity, fathers' excessive interference, fathers' refusal and denial, and fathers' excessive protection, are negatively correlated with the total score of SMHQA.

The fathers' and mothers' warmth and understanding are positively correlated with the total score of SMHQA, which is consistent with the results of previous studies [22], suggesting that a harmonious parent-child relationship and democratic upbringing are conducive to improving the sexual and mental health level of medical students. The basis of sexual mental health is sufficient and scientific sexual cognition [23-24]. Harmonious parent-child relationship and democratic upbringing are conducive to improving children's interest in sexual knowledge and exploration spirit, as well as full communication between parents and children on sexual issues, so that children have the opportunity to contact richer sexual knowledge, obtain more scientific sexual knowledge, and then establish more reasonable sexual values and form good sexual adaptability [25].

Four factors, including fathers' punishment and severity, fathers' excessive interference, fathers' refusal and denial, and fathers' excessive protection, are negatively correlated with the total score of SMHQA, which is consistent with the results of previous studies [22, 26-27], suggesting that poor parental rearing patterns will hinder children's sexual mental health. The specific reasons are as follows: If fathers are too strict in disciplining their children, setting a high-pressure warning line for their children, their children are afraid of sexual knowledge and sexual problems and dare not touch them. Fathers' excessive interference makes children feel controlled and produce a rebellious tendency. They deny the noble value of sex, like to contact unhealthy information, and show their independence with unhealthy sexual behavior; Fathers' refusal and denial will attack the children's self-confidence, so children can't establish self-confidence in the family, and it is easy to prove their attractiveness through sexual behavior, so as to establish self-confidence; Fathers' excessive protection is easy to make the children lose the ability of independent thinking and tend to passively internalize their parents' sexual concepts and values. The above four kinds of bad parenting methods are not conducive to children to master sufficient and scientific sexual knowledge, form correct sexual cognition and sexual values, and make children at a loss in the face of various physical and psychological changes brought about by their own sexual maturity, unable to adapt, and even produce anxiety, fear and other emotional disorders, or unsafe sexual

behavior, sexual crime and other behavioral problems.

This study found that the five dimensions of fathers' parenting style subscale have a significant predictive effect on the total score of SMHQA, and only warmth and understanding of mothers' parenting style subscale has a significant effect on the total score of SMHQA, suggesting that the role of the father is more important in the construction of children's sexual mental health.

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