

KNOWLEDGE: A POSSIBLE TOOL IN SHAPING MEDICAL PROFESSIONALS' ATTITUDES TOWARDS HOMOSEXUALITY

Bojana Dunjić-Kostić¹, Maja Pantović¹, Vuk Vuković¹, Dunja Randjelović²,
Sanja Totić-Poznanović^{1,3}, Aleksandar Damjanović^{1,3}, Miroslava Jašović-Gašić^{1,3} & Maja Ivković^{1,3}

¹Clinic for Psychiatry, Clinical Centre of Serbia, Belgrade, Serbia

²Special Hospital for Psychiatric Disorders „Dr Laza Lazarević“, Belgrade, Serbia

³School of Medicine, University of Belgrade, Belgrade, Serbia

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SUMMARY

Background: The attitudes of medical professionals towards homosexuals can influence their willingness to provide these individuals with medical help. The study evaluated the medical professionals' knowledge about homosexuality and their attitudes towards it.

Subjects and methods: The sample consisted of 177 participants (physicians n=79 and students n=98). The study respondents anonymously completed three questionnaires (socio-demographic questionnaire, the questionnaire on knowledge, and the questionnaire on attitudes towards homosexuals).

Results: Male and religious participants showed a lower level of knowledge and a greater tendency to stigmatize. Furthermore, the subjects who knew more about homosexuality tended to hold less stigmatizing attitude. Age group, specialty (psychiatry, gynecology, internal medicine and surgery), and student's/physician's status had no effect on stigmatization. The study showed that the final year students/ residents had more knowledge than the second year students/specialists did. Knowledge had significant negative predictive effect on attitudes in the analyzed predictive model.

Conclusions: To our knowledge, this has been the first study in Serbia and Eastern Europe, which provides information on knowledge and attitudes of health professionals towards homosexuality. We would like to point out the degree of knowledge on homosexuality as a possible, but not exclusive tool in shaping the attitudes towards homosexuals and reducing stigmatization. However, regardless of the personal attitude, knowledge and variable acceptance of the homosexuals' rights, medical professionals' main task is to resist discriminative behavior and provide professional medical help to both homosexual and heterosexual patients.

Key words: homosexuality – attitudes – knowledge – physicians – students

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INTRODUCTION

The stigma of homosexuality has been decreasing over the last thirty years (Smith & Mathews 2007). However, many countries are still unwelcoming towards homosexually oriented individuals (Shoko 2010, Guzmán et al. 2007). Bearing in mind that many physicians treat homosexual patients at least once in their medical career (Sanchez et al. 2006), and that homosexuals represent a significant part of the general population (Laumann et al. 1994), the insight into attitudes of medical professionals towards homosexuality is of great importance. Medical students, during their studies, as well as young doctors, during their residency, often do not receive comprehensive education on different sexual orientations. In addition, senior doctors lack practical skills in addressing unique health care needs of homosexual patients, which are often minimized or ignored (Dahan et al. 2007).

A high number of studies indicate that gay population is under higher risk of developing not only mental disorders, such as depression accompanied with suicide attempts and substance abuse (Cochran et al. 2007, King et al. 2008, Cochran & Mays 2009), but also somatic disorders, such as sexually transmitted diseases,

cancer and cardiovascular diseases (Dahan et al. 2007, Ridner et al. 2006). In order to reduce these risks, improve attitudes and knowledge, raise the awareness and improve the quality of health care of lesbian, gay, bisexual, and transgender (LGBT) patients, it is very important to get an insight into the attitudes of medical professionals towards different sexual behavior. Bhugra and King (1989) pointed out that physicians' attitudes depend not only on the level of their training (knowledge) and specialty, but also on their sexual orientation.

Attitudes of health professionals can influence the willingness to provide help to homosexual patients (Yen et al. 2007) and consequently the quality of health care and treatment. Furthermore, medical students' attitudes towards homosexuals are of great importance as the young are more prone to change and could be better promoters of anti-stigma programs. In addition, anti stigma- programs could help in spreading non-homophobic attitudes towards clients and patients, as well as in raising the awareness on how the attitudes of physicians and medical staff lead to negative social, ethical, and psychological consequences.

Along with other Eastern European countries, Serbia was one of the last to address the issue of homosexuality

in Europe. Furthermore, after the decriminalization of homosexuality in 1994, Serbia waited for another fifteen years for the first law banning the discrimination based on the sexual orientation. It took two more years for the first non-violent gay pride parade to take place (The Government of the Republic of Serbia, 2009). The first conviction for the hate speech against the members of the LGBT community has been made only a few months ago. Several studies assess the attitudes of physicians and students towards homosexuality (Arnold et al. 2004, Hon et al. 2005). However, to our knowledge, there are still no publications, which systematically assess medical students' and physicians' attitudes towards homosexuals and knowledge about homosexuality either in Serbia or in Eastern Europe. Hence, the objective of this study is to evaluate knowledge about homosexuality and attitudes of second and sixth year students at the School of Medicine, University of Belgrade, as well as the physicians employed at the Clinical Center of Serbia, towards homosexual men and women.

SUBJECTS AND METHODS

Subjects

The final sample which was included in the analysis, consisted of 177 participants, physicians, and students (specialists $n = 37$, trainees $n = 42$, and students $n = 98$) and was created using the method of convenient sampling. The only inclusion criterion for the students was that they had enrolled in the second or sixth year of studies at the School of Medicine, University of Belgrade, in 2009. All students who were present at the theoretical lectures and willing to participate in the study on the day of the testing were surveyed. The inclusion criteria for the physicians required them to be either specialists or residents at the Clinical Center of Serbia, working in psychiatry, internal medicine, gynecology, or surgery. All the physicians present at the selected departments on the day of the testing, who willing to participate in the study were surveyed.

Measures

The study instrument was a questionnaire consisting of three parts.

The first part contained questions regarding socio-demographic data about the participants (i.e. sex, age, sexual orientation, religious beliefs, workplace information, current job position, specialty).

The second part consisted of Sex Education and Knowledge about Homosexuality Questionnaire (SEKHQ). The questionnaire was created using the compilation of 32 true/false statements used in questionnaires in the three previous studies. The accuracy of the statements was assessed and supported by research findings and current scientific knowledge (Harris et al. 1995; Alderson et al. 2009; Wells &

Franken, 1987). The participants were required to express their opinion on the validity of the statements. The questionnaire contained, besides the „right“ and „wrong“ options, the option „I don't know,“ in order to achieve a more precise evaluation of knowledge and to avoid the possibility of false correct/incorrect answers. The SEKHQ score ranged from 0-32, where 32 represented the score with all correct answers. In the subsequent statistical analysis only the number of correct answers was calculated, while the option „I don't know“ was considered the wrong answer. Sex Education and Knowledge about Homosexuality Questionnaire showed the internal consistency reliability of the Chronbach's alpha =0.74 in the research. The overall average score at the questionnaire was $M=14.42$, $SD=4.98$.

The third part consisted of Attitudes towards Homosexuals Questionnaire. The questionnaire represents a compilation of three questionnaires, previously used in other studies (Smith & Mathews 2007, Morrison & Morrison 2002, Herek 1988). The Attitudes towards Homosexuals Questionnaire contained 20 statements regarding homosexuals, their lifestyle, and their social position. The questionnaire was in the form of the 5-grade Likert type scale, with scores ranging from 1 („I agree“) to 5 („I disagree“). The scale was analyzed using the total score and by every item individually. The scoring was performed by summing up the results by items. Some items required the use of the inverse scoring. The total possible score was 100, with a higher score meaning a more negative attitude towards homosexuals. The Attitudes towards Homosexuals Questionnaire showed the internal consistency reliability of Chronbach's alpha =0.92 in the study. The average score achieved on the questionnaire was $M=62.91$, $SD=16.34$.

Procedure

The research was approved by the Department of Psychiatry, School of Medicine in Belgrade. The testing for medical students and physicians was performed between October and December 2009, on two different days. The participants completed the surveys in a hardcopy form, anonymously. They gave their consent to participate in the research, after reading a brief description of the study and the consent form attached to the survey. Upon agreeing to participate in the research, the participants filled out a socio-demographic questionnaire and two other questionnaires regarding their attitudes towards homosexuals and their knowledge about homosexuality. The time necessary to complete both questionnaires was estimated to be 30 minutes.

Statistical analyses

The database was created in Microsoft Excel 2003, and the data were analyzed using the software package SPSS for Windows v. 16.0 (SPSS Inc. Chicago, IL).

The internal consistency reliability of the survey instruments was estimated using the Chronbach's alpha. The normality of distribution for the numeric parameters was tested by the Kolmogorov-Smirnov test. The standard methods of the descriptive statistics were used to describe the data (i.e. frequencies and percentages for attributive parameters, and the mean values with the standard deviations for the numeric parameters). Since, very few participants declared themselves as homosexuals/bisexuals, the answers given by all participants were combined and analyzed together. The independent samples t-test, the one-way ANOVA, the Pearson's linear correlation and the standard multiple linear regression were used to analyze the data.

RESULTS

The survey initially included 200 participants out of which 23 (21.50%) handed in the questionnaires with missing/invalid data. Such questionnaires were omitted from the subsequent analysis. The total number of

participants/questionnaires included in the analysis was 177. The socio-demographic data of the sample are given in Table 1.

Gender and knowledge/ stigmatization relationship

Male participants showed a lower level of knowledge about homosexuality $t(175)=-2.81, p=0.005$, and a higher tendency to stigmatize homosexually oriented individuals $t(175)=3.38, p=0.001$.

Effects of religiosity

Religiosity showed a statistically significant effect on the stigmatization of homosexuals whereof the "religious" were more stigmatizing than the "non-religious" $t(175)=-3.33, p=0.001$. The participants who declared themselves as "non-religious" showed more knowledge about homosexuality than those declaring themselves as "religious" $t(175)=4.36, p=0.000$.

Table 1. Descriptive data of the sample (N=177)

Variable		N	%	
Sex	Male	70	39.50	
	Female	107	60.50	
Age group	18-24 years	75	42.40	
	25-34 years	60	33.90	
	35-44 years	31	17.50	
	45-54 years	7	4.00	
	55-65 years	4	2.30	
Religious affiliation	Religious	Orthodox Christian	146	82.50
		Others	9	5.10
	Non-religious	22	12.40	
Professional affiliations	Students	2nd year	38	21.50
		6th year	60	33.90
	Doctors	Residents	42	23.70
		Specialists	37	20.90
Field of specialization	Psychiatry	26	32.91	
	Gynecology	22	27.85	
	Internal Medicine/Surgery	31	39.24	
Sexual orientation	Heterosexual	173	97.90	
	Homosexual	2	1.10	
	Bisexual	2	1.10	

Table 2. The analyzed predictive models

The outcome variable	Predictive variables	Unstandardized coefficients		Standardized coefficients Beta	t	p	Model
		B	S.E.				
The attitudes towards homosexuals	Knowledge	-1.61	0.21	-0.49	-7.67	0.000	$R^2=0.352$
	Religiosity	8.96	3.09	0.18	2.90	0.004	$F=32.86$
	Male gender	4.29	2.07	0.13	2.07	0.040	$p=0.000$
The knowledge of homosexuality	Attitudes	-0.16	0.02	-0.52	-7.67	0.000	$R^2=0.313$
	Religiosity	-1.13	0.99	-0.08	-1.14	0.256	$F=27.67$
	Male gender	-0.73	0.65	-0.07	-1.12	0.265	$p=0.000$

Table 3. The Sex Education and Knowledge about Homosexuality Questionnaire (SEKHQ) with the percentage of correct answers to the questions

Questions	Correct answers
1. (F) Approximately 25-30% of adolescent boys have a homosexual experience during their teenage years	39.50%
2. (F) A majority of homosexuals were seduced in adolescence by a person of the same sex, usually several years older	45.20%
3. (T) Approximately 6-11% of adolescent girls have a homosexual experience during their teenage year	31.60%
4. (T) Sexual orientation is usually well-established by adolescence.	58.80%
5. (T) The homosexuals usually disclose their sexual identity to a friend before they tell a parent	84.20%
6. (F) A homosexual person's gender identity does not agree with his/her biological sex.	39.00%
7. (F) If children are raised by openly homosexual parents, the likelihood that they themselves will develop a homosexual orientation is greater than if they were raised by heterosexual parents.	37.30%
8. (T) Gay men and lesbian women have an increased incidence of anxiety and depression compared to heterosexual men and women.	40.70%
9. (F) Homosexuals place more importance on the physical attractiveness of their dating partners than do heterosexuals.	46.90%
10. (T) The experience of love is similar for all people regardless of sexual orientation.	71.80%
11. (T) Gay male couples are likely to have the most permissive attitudes about sexual activity outside of a committed relationship compared to lesbian couples and heterosexual couples.	22.00%
12. (T) In some cultures, it is normal practice for boys to have sex with their same-gender during adolescence.	29.90%
13. (F) In the world as a whole, the most common mode of transmission of the HIV virus is through gay male sex.	43.50%
14. (T) Testosterone is the hormone responsible for the growth of pubic hair on girls.	39.50%
15. (T) Boys' breasts typically grow during puberty.	37.90%
16. (F) Research supports the notion that sex education offered in schools increases the amount of sexual activity amongst adolescents.	39.50%
17. (F) In the last 25 years there has been an increase in homosexuality.	25.40%
18. (F) Most homosexual men and women want to be heterosexual.	65.50%
19. (F) Most homosexuals want to encourage or entice others into a homosexual or gay lifestyle.	54.20%
20. (T) Heterosexual teachers, more often than homosexual teachers, seduce their students or sexually exploit them.	23.20%
21. (F) Greece and Rome fell because of homosexuality.	65.50%
22. (F) Heterosexuals generally have a stronger sex drive than do homosexuals.	55.40%
23. (T) About one-half of the population of men and more than one-third of women have had a homosexual experience to the point of orgasm at some time in their lives.	10.70%
24. (T) The homosexual population includes a greater proportion of men than of women.	36.20%
25. (T) Heterosexual men and women commonly report homosexual fantasies.	39.00%
26. (F) If the media portrays homosexuality or lesbianism as positive, this could sway youths into becoming homosexual or desiring homosexuality as a way of life.	42.40%
27. (F) Homosexuals are usually identifiable by their appearance or mannerisms.	37.30%
28. (F) Homosexuals do not make good role models for children and could do psychological harm to children with whom they interact as well as interfere with the normal sexual development of children.	41.20%
29. (T) Gay men are more likely to be victims of violent crime than the general public.	71.20%
30. (F) Homosexuality does not occur among animals (other than human beings).	57.60%
31. (F) Historically, almost every culture has evidenced widespread intolerance towards homosexuals, viewing them as "sick" or as "sinners".	29.90%
32. (T) Heterosexual men tend to express more hostile attitudes toward homosexuals than do heterosexual women.	79.70%

The effects of socio-demographic characteristics on knowledge and attitudes

There was a strong, statistically significant, inverse correlation between the knowledge of homosexuality and the negative attitudes towards the homosexuals $r=-0.56$, $p=0.000$.

No statistical difference between the age groups (18-34 year-olds, 35-65 year-olds) concerning total degree of knowledge $t(175)=-0.87$, $p=0.387$, and the negative attitudes towards homosexuals $t(175)=-0.04$, $p=0.967$, was found. The physicians of different specialties (psychiatry, surgery, internal medicine, and gynecology) showed no difference in their knowledge about homosexuality $F(2, 76)=1.88$, $p=0.160$, and the attitudes towards homosexuals $F(2, 76)=1.03$, $p=0.364$. The students and physicians did not differ in knowledge $t(175)=1.00$, $p=0.318$, and attitudes $t(175)=0.68$, $p=0.500$. The second year students showed less knowledge in comparison with the sixth year students ($M=-2.93$, $SD=1.01$, $p=0.004$) and the trainees ($M=-3.28$, $SD=1.09$; $p=0.003$). However, the second year students and the specialists showed a similar level of knowledge, with the specialists scoring higher on the questionnaire ($M=1.71$, $SD=1.12$, $p=0.129$). The specialist did not significantly differ in their knowledge from the sixth year students ($M=-1.22$, $SD=1.01$, $p=0.233$) and the trainees ($M=-1.57$, $SD=1.09$, $p=0.153$) although they did score lower on the questionnaire. The attitudes did not differ among the groups $F(3, 173)=1.02$, $p=0.384$,

which were divided according to the academic level (the second and the sixth year students, the trainees and the specialists).

Predictive models

The first predictive model included three factors: (1) knowledge; (2) religiosity; and (3) the male gender. The analyzed model was statistically significant and the all proposed factors together, accounted for 35.2% of the variance of the attitudes towards the homosexuals. The second analyzed predictive model also included three factors: (1) the attitudes towards the homosexuals; (2) the male gender; and (c) religiosity. The analyzed model was statistically significant and the proposed predictors in total explained 31.3% of the knowledge of the homosexuality variance. The predictive effects of the proposed factors in the respective models are given in Table 2.

The important statements

The statement that most participants (84.20%) judged correctly was: "The homosexuals usually disclose their sexual identity to a friend before they tell a parent." Vast majority of the participants (89.30%), gave incorrect answer to the question: "About one-half of the population of men and more than one-third of women have had a homosexual experience to the point of orgasm at some time in their lives" (see Table 3).

Table 4. The Attitudes towards Homosexuals Questionnaire with respective mean values

Statements	Mean±SD
1. Many gay men use their sexual orientation so that they can obtain special privileges.	3.29±1.27
2. Gay men do not have all the rights they need.	3.06±1.30
3. Celebrations such as "Gay Pride Day" are ridiculous because they assume that an individual's sexual orientation should constitute a source of pride.	3.61±1.34
4. Gay men still need to protest for equal rights.	3.08±1.28
5. If gay men want to be treated like everyone else, then they need to stop making such a fuss about their sexuality/culture.	3.77±1.20
6. Gay men who are "out of the closet" should be admired for their courage.	2.78±1.17
7. In today's tough economic times, tax money shouldn't be used to support gay men's organizations.	3.72±1.27
8. Gay men have become far too confrontational in their demand for equal rights.	3.84±1.26
9. It would be beneficial to society to recognize homosexuality as normal.	3.08±1.33
10. Homosexuals should not be allowed to work with children.	2.73±1.38
11. The homosexuals should have equal opportunity of employment.	1.99±1.19
12. Homosexuals should be allowed to marry.	3.45±1.41
13. Homosexuals should be given social equality.	2.27±1.21
14. I think male homosexuals are disgusting.	2.59±1.36
15. If a man has homosexual feelings, he should do everything he can do to overcome them.	2.65±1.23
16. I would not be too upset if I learned that my son was homosexual.	3.94±1.14
17. Homosexual couples should be allowed to adopt children just like heterosexual couples.	4.00±1.20
18. Homosexuals are sick.	2.76±1.44
19. Just as in other species, male homosexuality is a natural expression of sexuality in human man.	3.34±1.27
20. Homosexuality is merely a different kind of lifestyle that should not be condemned.	2.91±1.39

The participants had the most negative attitude towards the statement: "Homosexual couples should be allowed to adopt children just like heterosexual couples" ($M=4.00$; $SD=1.20$), with as many as 50.30% "completely disagreeing" with this statement. The smallest percentage of respondents (4.00%) "completely agreed" that they "would not be too upset if they found out that their son was a homosexual." The least stigmatizing attitude was expressed towards the statement: "The homosexuals should have equal opportunity of employment." ($M=1.99$; $SD=1.19$). The highest percentage of the respondents (43.50%) "completely agreed" with this statement. In addition, it was the lowest percentage of the respondents (6.80%) who "completely disagreed" with it (see Table 4).

DISCUSSION

To our knowledge, the current study is the first one in Serbia and in Eastern Europe to assess the attitudes and knowledge of medical students and physicians towards homosexuality. Out of the total number of the participants included in the study, 2.2% declared as "non heterosexual," which is consistent with the literature (Laumann et al. 1994, Gay and Lesbian Medical Association and LGBT health experts 2001). Both the male and the religious participants showed a lower level of knowledge. In addition, both of these groups were prone to have a more negative attitude towards homosexuals. Furthermore, the knowledge by itself was associated to the attitudes. The subjects who showed more knowledge about homosexuality were less stigmatizing towards homosexually oriented individuals. The age group, specialty, and the student/physician status did not affect the stigmatization. The study also showed that the final year students and the trainees had more knowledge on the subject than the second year students and the specialists. The strongest negative predictor of attitudes towards homosexuals was proven the knowledge, while the religiosity and the male gender were the positive predictors. The religiosity and the male gender had no predictive effect on knowledge, while the attitudes towards homosexuality negatively predicted it.

In almost all cultures, men hold a more negative attitude towards the homosexuals and tend to judge more male than female homosexuality (Verweij et al. 2008, Steffens & Wagner 2004). The research also showed that they knew less about homosexuality than women, which could have been expected considering their overall more negative standpoint (Arnold et al. 2004). Our study speaks in favor of the same findings. Besides reducing homonegativity in both genders, the degree of knowledge contributes to a better understanding of the health problems of homosexual individuals, to being more approachable, and better diagnostics and prevention (Sanchez et al. 2006).

However, it is encouraging, that only a small number of individuals hold extremely negative attitudes towards homosexuality (Hon et al. 2005, Ellis 2002, Røndahl 2004). Yet, despite the overwhelmingly accepting attitudes, some individuals are often reluctant to support homosexuals' human rights (Ellis et al. 2002), and they show a high degree of prejudice (Guzmán et al. 2007). Although the number of physicians, holding negative attitudes towards homosexuality is declining, there are still those who would not accept a homosexual applicant to a medical school, and those who would not trust a homosexual colleague (Smith & Mathews 2007, Ramos et al. 1998). Physicians show the most negative attitude towards homosexual colleagues seeking a specialization in gynecology and obstetrics, whereas the least negative attitude is directed towards those pursuing a career in radiology (Ramos et al. 1998). Most of the medical professionals in our study supported employment equality. However, only a small number of them approved of adoption of a child by a homosexual couple and would not be upset if their son was gay. The question remains whether any individual (regardless of the field of professional interest) can set aside their irrational (emotional) bias and preconceived notions using the rational arguments. Furthermore, whether the rational approach towards the accepting homosexuality would, at the same time, solve particular problems and lead towards the acceptance of the "hot topics" like gay marriage and adoption, is questionable. In clinical practice, it is most important for physicians to equally provide the best available care for both their heterosexual and homosexual patients, keep the professional attitude, and avoid any kind of discrimination within the health care system, regardless of the personal opinion on the issue.

Age is one of the factors playing an important role in stigmatization. However, the results on the attitudes towards homosexuality and age vary. In our study, the age did not affect the level of stigmatization. Contrary to this, other results indicated (Herek 2002, Herek & Gonzalez-Rivera 2006) that older people are more prone to stigmatize homosexuals and bisexuals than younger people. The results also show that younger students have more negative attitudes (Sanchez et al. 2006, Kissinger et al. 2009), but once they go through four years of education, they become less prejudiced (Jayakumar 2009). The same happened in our sample and we assume this either to be a result of maturity, a result of education, or the interplay of both.

Cultural and psychosocial aspects have a strong effect on sexuality, and, consequently, on attitudes towards homosexuality (Ahrold & Meston 2010). As a cultural factor, religion is important when it comes to the perception of gender. Furthermore, it is found to be a predictor of attitudes towards homosexuality by many studies (Adamczyk & Pitt 2009, Hooghe 2010). Consistently with the findings from other countries (Hon et al. 2005), our research has shown that people,

who declared themselves to be more religious, had less knowledge and held a more negative attitude towards homosexuality. This is even more evident in less securely attached individuals (Marsh & Brown 2009). The results of an extensive study conducted in 31 European countries, suggest that the Christian Orthodox religion is one of the main predictors of the negative attitudes towards homosexuals, along with the degree of urbanization and economic development (Stulhofer & Rimac 2009).

The attitudes of all medical professionals and medical students are very important due to their capacity to influence the physician-patient relationship, which can in turn influence the treatment and its outcome. The research showed that over 90% of medical professionals encountered a homosexual patient at least once in their career (Sanche et al. 2006). The professionals holding negative attitudes towards homosexuality are less willing to help the gay patients (Yen et al. 2007). Nevertheless, it seems that more frequent interaction with these patients diminishes the homonegativity (Pérez-Testor et al. 2010). The studies confirmed that nurses who had had a previous contact with a homosexual person, and who had known more about homosexuality, had a less homophobic attitude (Yen et al. 2007). Although it is comforting that medical professionals show an overall accepting attitude towards the homosexuals (Röndahl et al. 2004), one would still expect less stigmatization of homosexuals than in other professions (Arnold et al. 2004). Psychiatrists, pediatricians, and specialists in internal medicine seem to be the least homophobic, while surgeons, family medicine specialists, and orthopedic surgeons are among the most homophobic physicians (Smith & Mathews 2007). The physicians in our sample (psychiatrists, gynecologists, surgeons and internal medicine specialists) were equally willing to accept homosexuality.

The researchers predominantly focus on attitudes towards homosexuals, while there is a scarcity of studies on the knowledge about homosexuality. These two factors are undoubtedly related to a certain degree. In our study, the knowledge seemed to be a significant predictor of attitudes towards homosexuality. Despite our results, we do not imply that increasing the level of knowledge about homosexuality could automatically, rapidly and substantially lead to the change in attitudes and the acceptance of the gay population. However, the constant progress towards better understanding of the issue of homosexuality would be beneficial for all medical professional who should not allow their knowledge/lack of knowledge, race, religion and gender affect their professionalism.

Homosexual population has specific and unique health care needs, which require special attention. Regrettably, fear of stigmatization could result in avoiding medical examination or giving false information (Dinkel et al. 2007). These individuals have significantly lower quality of life compared to hetero-

sexuals, especially in the environments reluctant to accept them (Traeen et al. 2009). Stigmatizing attitude towards homosexuals is at the top of the list of the stigmatization prone groups, surpassed only by the stigmatization of intravenous addicts (Herek 2002). Homosexuals are often victims of violence due to their sexual orientation (Harrison 1996). In Serbia, 90% of homosexuals have heard about the violence perpetrated against the members of the gay population because of their sexual orientation, while two thirds have been victims of violence (emotional and/or physical) themselves. The lack of trust in the authorities is the most common reason why only a small number of victims were willing to report the incidents to the police (Čvorović & Vučković 2006).

LIMITATIONS

The percentage of participants who agreed to fill out the questionnaires was 88.50%. It could be assumed that the participants, who refused to fill out the questionnaires, had more negative attitudes towards the LGBT population. A high percentage of the non-responders could also be attributed to the fact that the questionnaires were filled out in pencil, rather than using a computer. The participants could have perceived this method of testing as a less anonymous option.

The sample did not include physicians of every specialty. In the data analysis, this might have influenced the group attitude towards the LGBT population. However, the study included the specialties who according to previous studies were identified to hold a predominantly positive/negative attitude toward the LGBT population.

The fact that the study did not use any of the existing questionnaires, assessing the attitudes towards the members of the LGBT population, presents a difficulty for data comparison with other studies. The questionnaires were created by combining several existing ones, in order to get a more comprehensive overview of the specific cultural background. The internal consistency reliability was assessed and proven satisfactory. However, the other psychometric properties were not assessed.

A small number of participants declared themselves as LGBT, which disabled the statistical analysis and the comparison of the attitudes of heterosexual and homosexual groups. On the other hand, this enabled the general assessment of the attitudes of the medical professionals regardless of their sexual orientation.

CONCLUSIONS

To our knowledge, the current study is the only of its kind in Serbia and in Eastern Europe. It represents a pilot study of the attitudes and knowledge of homosexuality among medical professionals in the

Serbia's largest university center. The majority of conclusions in the study are consistent with the existing data. Underlining the multidimensional issue of homosexuality, we would like to single out the degree of the education/knowledge as one of the factors, which possibly but not exclusively, affects the attitudes towards homosexuality. Better understanding of specific and unique health care needs of homosexual patients, more positive attitudes of medical students, and above all, the high quality of the provided care achieved through continuous education, acquiring the necessary skills for everyday practice, and establishing better contact with homosexuals are all of crucial importance. However, regardless of the personal attitude and variable acceptance of the homosexuals' rights, the health care professionals' main task is to resist the discriminative behavior and provide professional medical help. Future studies should deal with the LGBT patients' perception of the received health care and assess the potentially questionable professionalism of biased groups of physicians. In addition, the health care professionals and students should lead an anti-stigma campaign, and improve their knowledge on this topic through personal work, education, publications and media.

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Correspondence:

Maja Ivković, MD, PhD
Psychiatric Clinic, Clinical Centre of Serbia
Pasterova 2, 11000 Belgrade, Serbia
E-mail: majaivk@eunet.rs