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## Assessment of Mental Health Stigma Components of Mental Health Knowledge, Attitudes and Behaviors Among Jordanian Healthcare Providers

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### Abstract

Health care providers (HCPs)' stigma perception can determine their behaviors and attitudes toward providing mental health services. This study aimed to assess stigma components of knowledge, attitude, and behavior among HCPs in Jordan. A cross sectional descriptive study using a convenience sample of 541 HCPs utilized. The Mental Health Knowledge Schedule (MAKS), the Mental Illness: Clinicians' Attitudes Scale (MICA) and the Reported and Intended Behavior Scale (RIBS) were used to evaluate HCPs' perceived stigma. Mean scores on RIBS were lowest and at mid-point for MAKS and MICA. Results revealed significantly that HCPs perceived stigma demonstrated in greater negative attitudes correlated with less knowledge ( $r = .18, .17$ ;  $p = .01, .009$ ) for both physicians and nurses. And between attitudes and reported intended behavior ( $r = .13, p = .025$ ) among nurses. This make them less likely to deal with mental health problems in primary healthcare centers. The reported stigma in this context is possibly due to lack of training, inadequate experience, and cultural dynamics. Indeed, awareness programs are important to prepare those HCPs to provide mental health care in these settings shall they are asked to.

### Keywords

Stigma; Knowledge; Attitude; Behavior; Mental health; Jordan

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**Conflict of interest** The authors of this study have no conflict of interests of any type.

Compliance with Ethical Standards

**Ethical Approval** The Institution Review Board (IRB) at principal researcher's academic institution and the Ministry of Health and Scientific Review approved the study (Number 74–2017). Administrators of the primary health care centers also approved the study. Participation was voluntary and the participants signed a consent prior to enrollment. The participants were given information about confidentiality of information and their right to withdraw from the study at any time.

## Introduction

About one in five adults (43.8 million) experience mental illness in the United States (National Alliance on Mental Health 2019). Globally, about 450 million people suffer from mental illness at a given time (NAMI 2019). The prevalence of mental health problems is similar across the nations globally (Thornicroft et al. 2016a; Giandinoto et al. 2018; Gronholm et al. 2017). Data on the actual prevalence in Arab countries are scarce, primarily due to the stigma attached to mental health problems and the consequent lack of mental-health screening at primary healthcare settings (Bener et al. 2015; Thornicroft et al. 2016b).

Stigma associated with mental health problems is targeting not only clients but other population targets (Thornicroft et al. 2016b). Stigma has noted to cause negative impacts on perceptions, attitudes, and behaviors associated with providing specialized mental healthcare. Research studies and models have been proposed to conceptualize mental health stigma, to identify its impacts and how consumers, families and even public sectors cope with it (Dalky 2012; Thornicroft et al. 2016b).

Efforts are directed to study stigma perceptions among different population groups including healthcare providers working not only in the specialized mental health settings, but in general primary healthcare centers (Thornicroft et al. 2016b). This becomes a priority especially after World Health Organization (WHO) called to integrate and promote mental health services at primary healthcare centers (WHO 2013). To assure this, recommendations are noted to train healthcare providers, including physicians, family medicine doctors and registered nurses to be able to identify clients with mental health problems to treat them as suggested (WHO 2013).

Healthcare providers (HCPs) like other population groups display stigma, often they have negative perceptions about mental health problems that impede healthcare delivery (Thornicroft et al. 2007a). Health care providers often lack adequate education, training, and support systems to provide optimal care for those with mental health problems (Petersen et al. 2016). Further, negative attitudes exhibited by HCPs diminish clients' feelings of empowerment and influence subsequent treatment outcomes (Gronholm et al. 2017). In general, HCPs take a task-oriented approach to healthcare delivery, resulting in diminished empathy and less personal engagement (van Boekel et al. 2013).

While providing care, HCPs may routinely encounter clients with mental health problems. Negative experiences and poor socio-demographic factors hinder people with mental health problems from disclosing the mental health problems they experience, and this often result in delays in help seeking, leading to unmet needs, and treatment gaps (Giandinoto et al. 2018; Thornicroft et al. 2016b). The stigma associated with mental health problems is the most common obstacle for mental health care, and, consequently many clients remain untreated (Henderson et al. 2017; Thornicroft et al. 2016b).

People in Jordan, like other countries; suffer stigma associated with mental health problems. This stigma impacts HCP in various ways. Social and cultural factors seem to play a major role on stigma perception among HCPs, clients and their families (Dalky 2012; WHO 2011,

2013). Lately, respected efforts are directed toward promoting mental health services in Jordan (2013). Thus, having a well-trained HCP is a necessary and of great importance in such contexts.

## **Mental Health in Jordan: Cultural Perspectives**

Jordanian society is communalistic and has a slow rate of cultural change. It emphasizes the group over the individual and deals with individual problems in a cooperative or shared context. The vast majority of Jordanians are Muslim. According to a Department of Statistics DOS (2018) report, Jordan has a population of 10.3 million, and poverty and related social problems are prevalent. Arabic is the native spoken language. In comparison to most of its geographically located neighbors, Jordan has an advanced health care system.

There are three major health service providers: a large private sector, a military health services sector, and a public health services managed by the Ministry of Health (MOH), which provides free or low-cost services to between 30 and 40% of the population (WHO 2013). MOH clinics are located throughout the country, and they can be accessed in less than 30 min for 85% of the population. There are three primary mental health clinics located in the three main cities of Amman, Zarqa, and Irbid. These clinics provide basic primary mental health care for adult and elderly people. They also provide follow-up care for clients discharged from the only in-patient public mental health center in the country, the National Mental Health Center.

### **Mental Health Services in Jordan**

According to the National Report on Mental Health System and Services in Jordan developed by the National Mental Health Team, a collaborative work with WHO; a national mental health authority exists which provides advice to the government on mental health policies and legislation (WHO & Ministry of Health 2011; WHO 2013). Published reports on mental health services in Jordan are scarce, thus; the AIMS report (WHO 2011, 2013) is considered one of the main published reports concerning mental health services and statistics in Jordan.

Jordan has 64 outpatient mental health facilities. Of these, there is two clinics for children and adolescents and the majority are distributed mainly in Northern and middle of Jordan. This distribution accommodates the population aggregates and density in these areas compare to others (WHO & Ministry of Health 2011; WHO 2013).

In Jordan, there are about 8.2 beds/100,000 population. The number of staff working in mental health facilities is 12.1 per 100,000 population. The report continued about the interventions stating that about 28% of physicians, 5% of nurses and 6% of other employees in the primary health centers received 2 days of refresher training in mental health. However the schools in Jordan still do not have any significant mental health support for students. Considering the increase in the number of people entering the country due to displacements during war and associated psychosocial need, these services are insufficient (WHO & Ministry of Health 2011; WHO 2013).

Mental health services in Jordan are mainly provided in hospital settings, with obviously no primary, community-based or self-care (WHO 2013). Over the last ten years, more attention is directed toward enhancing mental health in Jordan. In 2010, Jordan was selected as one of six countries for the implementation of the WHO Mental Health Gap Action Program (mhGAP). In 2011, the newly developed mental health policy and plan were adopted. This new policy highlights the importance of “quality community mental health services that reflect the comprehensive bio-psychosocial approach through multidisciplinary interventions, with emphasis on human rights, participatory approach and cultural relevance.” (WHO 2013, p. 3). This policy emphasized the importance of availability of community mental health centers, to prepare trained and competent mental health staff, to promote mental health care users’ human rights, and to fight stigma (WHO 2013).

So, the recommendations were to start mental health training for general HCPs including physicians and nurses who are working in primary healthcare centers. Here; it is with great importance that evaluating the negative or stigmatized attitudes, behaviors of the HCPs could reveal necessary information about mental health stigma and thus, guide the trainers to best meet the goals and outcomes of intended training programs in a selected primary healthcare centers in Jordan.

## Rationale and Significance

Few research studies have been conducted in the Arab World on healthcare providers’ perception of stigma associated with caring for mental health problems; shall they exist in primary healthcare centers (Keynejad et al. 2018; WHO 2013). No studies have been identified in Jordan. This study represents the investigators’ initial research endeavor with the goal of reducing the burden of mental illness stigmatization among Jordanian HCPs. The aim of this study was to examine the perceived stigma among HCPs toward providing mental health services in primary health care centers; shall they have to. Specifically, this study assessed stigma components of knowledge, attitudes, and behavior of a sample of physicians and nurses working in primary healthcare centers in Jordan. In this study, healthcare providers are physician and nurses. Physicians can be general medical doctors or family medicine and nurses are registered nurses (RNs) who currently working in general healthcare centers.

## Theoretical Model of Stigma

### Stigma Perception

The concept of stigma is rooted in history and social science. Erving Goffman’s (1963) book ‘*Stigma: Notes on the Management of Spoiled Identity*’ promoted classic research on the nature, sources, and consequences of stigma (Link et al. 2004). The term “mental illness stigma” has various meanings or definitions as conceptualized by different scientists (Link et al. 2004). In addition, stigma corresponds to a complex interaction among social science, politics, history, psychology, medicine, and anthropology, which makes it hard to formulate a widely accepted unitary theory of stigma (Link et al. 2004). Further, many theoretical models proposed and tested in various population and cultural contexts.

Though, this study is guided by the theoretical model of stigma developed by Thornicroft et al. (2007b). They define perception of stigma in terms of knowledge, attitudes, and behaviors. Accordingly, the term stigma refers to problems of knowledge (ignorance), problems of attitudes (prejudice), and problems of behavior (discrimination). Indeed, stigma is the result of inaccurate information or knowledge about mental problems that can result in development of negative attitudes in individuals. Negative attitudes lead to unacceptable behaviors, such as discriminatory actions. Using the instruments developed by Thornicroft and colleagues (Evans-Lacko et al. 2010, 2011; Gabbidon et al. 2013); we assessed knowledge, attitudes, and reported or intended behaviors for a sample of HCPs in selected primary general health care centers in Jordan.

## Methods

### Design and Sample

A cross sectional descriptive design was used to examine stigma perception' components of knowledge, attitude, and behavior of 541 HCPs selected from primary healthcare settings in Northern and Central Jordan in 2017.

Participants were recruited from comprehensive primary healthcare centers located in three cities within two major governorates (Northern and Central) in Jordan. The names of the cities are kept confidential. The healthcare centers are comprehensive and allocated based on their feasible locations and the large number of people access them.

The sample of the present study was a convenience. The sample size was determined using G.Power analysis. Knowing Pearson correlation test used to identify relationship between study variables among HCPs, a minimum of 200 participants from each Northern and Central study settings, was needed. A total of 541 healthcare providers responded back and completed the study instruments (225 physicians and 316 nurses). The inclusion criteria were: Physician or nurse employed at the healthcare center, has been employed in the setting for at least one year, and can read and write Arabic fluently.

### Procedure

Data were collected using survey method during a 7-month period in 2017. The survey instruments were distributed to participants in their practice settings in sealed envelopes. After obtaining IRB approvals, participants were contacted by the principal investigator and informed about the study. Participants were encouraged to complete the survey instruments in their practice settings at their convenient time. Researchers were available to provide any help required. Completed sealed packets were collected as they became available. The return rate reached 100%.

Study Instruments: participants self-reported on their knowledge, attitude and behavior using the following detailed instruments; demographic data (age, gender, marital status, and years of experience) also were collected.

The Mental Illness: Clinicians' Attitudes (MICA) v4 Scale (Gabbidon et al. 2013) is a 16-item scale. The scale is found to be reliable with a Cronbach's alpha of  $\alpha = .72$ .

Participants self-reported their attitudes towards mental illness on a 6-point Likert scale with 1 = totally agree and 6 = totally disagree. Scores can range from 16 to 96 and a lower score indicates less stigma.

Knowledge about mental illness was measured using Mental Health Knowledge Schedule (MAKS) (Evans-Lacko et al. 2010). It is a 12-item tool (Cronbach's  $\alpha = .72$ ) to assess and track the HCP's mental health knowledge. The first 6-items cover stigma-related mental health knowledge, and the items 7–12 assess opinions about which condition are types of mental health problems. The first 6-items' scale is a 5-point Likert scale and options range from 1 = totally disagree to 5 = totally agree. "Don't know" was given a value of 3 for determining the total score. The total score was the added responses for items 1–6 and it range from 6 to 30; a higher score means more knowledge.

The Reported and Intended Behavior Scale (RIBS) (Evans-Lacko et al. 2011) is an 8-item behavior scale with a Cronbach's alpha of .75 and measured their reported or intended behavior on a 5-point Likert scale. A higher score indicates greater readiness to contact people with mental illness. The original developers of these tools gave consents to use the tools and translate accordingly. As noted in the previous section, these instruments have used collectively in studies intended to measure stigma components in various cultural contexts and population groups.

To this study, instruments are translated and back-translated into Arabic. Bilingual experts translated the tools and checked content validity for the instruments. Further, a pilot study was conducted with a sample of 20 participants to test instruments psychometrics and feasibility of the study. The results of the pilot testing were acceptable in terms of feasibility, content validity, and reliability; detailed results available upon direct request from the author. Participants of the pilot study were excluded from full study data analysis.

## Statistical Analysis

Using SPSS version 22. Initial analysis was carried out to assess for normality, sample mean, and standard deviation of the MICA v4, MAKS, and RIBS scores. Pearson correlations were conducted to assess the association of the relation between instruments scores and with demographic characteristics. Significance level was set at .05.

## Results

### Demographic Characteristics

A total of 541 HCPs participated in the study. As shown in Table 1, the physicians ( $n = 225$ ) were predominately young ( $29.3; \pm 6$  years), male (60%) and single (57%). The majority (65%) had less than 3 years of experience. The mean age of the nurses ( $n = 316$ ) was 32 ( $\pm 7.7$  years), and the sample was predominately female (83%). Majority were married (65%) and half of them (51%) had more than 5 years of work experience in the primary health care centers.



## Perceived Stigma Among Physicians and Nurses: Means and Correlations

The mean scores for stigma perception among physicians and nurses were essentially parallel. Scores for attitude were slightly above mid-point (48) for both groups (51.09 for physicians vs. 48.9 for nurses), somewhat higher than mid-point (36) for knowledge (46.26 for physicians vs. 43.44 for nurses). However, scores were greatly lower than midpoint (24) for reported or intended behavior (11.67 for physicians vs. 12.31 for nurses). Detailed information for both groups is described in the next section.

Mean scores of physicians and nurses on all three measures were noted in Table 2. The mean scores for physicians were as follows: on MICA v4, 51.1 ( $\pm 8.3$ ) or slightly above midpoint of 48; on MAKS, 46.3 ( $\pm 5.4$ ) or above midpoint of 36; and for RIBS, 11.7 ( $\pm 4.1$ ) or below midpoint of 24. In reference to scale mean scores correlation with demographic characteristics, a significant negative correlation ( $r = -.18$ ;  $p = .010$ ) was present between MAKS score and age (Table 3). In reference to the relation of scale scores with each other, a significant positive correlation was found between MICA and MAKS total scores ( $r = .18$ ;  $p = .015$ ).

The mean scores for nurses were as follows: on MICA 48.9 ( $\pm 7.7$ ), or approximately at midpoint (48); on MAKS, 43.4 ( $\pm 4.9$ ), or above mid-point (36); and for RIBS, 12.3 ( $\pm 4.0$ ), or below mid-point (24). A significant negative correlation ( $r = -.17$ ;  $p = .009$ ) was found between MICA and MAKS total scores. A significant positive correlation ( $r = .13$ ;  $p = .025$ ) was found between MAKS and RIBS total scores (Table 4).

## Discussion

Five hundred and forty-one (541) HCPs participated in the study which aimed to examine their stigma perception by assessing stigma components of mental health knowledge, attitude and behavior toward providing mental health services in primary healthcare centers. The results revealed that HCPs perceived stigma demonstrated in greater negative attitudes, less knowledge, and are less likely to deal with mental health issues in primary healthcare centers.

The high knowledge scores indicated that physicians and nurses at primary health centers in Jordan has good knowledge about mental illness, however; this knowledge component not fully impacted the overall stigma perception as seen in the lower scores on the reported negative attitudes and behaviors. None the less, the high score could be possibly due to the higher attention to mental health issues in Jordan which has started since 2010 and driven by the WHO initiative (WHO 2010, 2013). This initiative, since its start; has provided an interventional plan in collaboration with WHO-specialized teams to set-up programs focused on training healthcare staff across the country. These training programs focus on empowering physicians and nurses to provide mental health care services in primary health care settings (International Medical Corps 2015; WHO 2013). With all the efforts invested in this matter, more still to be done in relation to conduct evaluation studies to the current training programs. And to tie it with other components such as attitudes and behaviors to best achieve the ultimate outcome of changing and defeating mental health stigma and better quality of mental health care. Although this study could provide basic information about



levels of stigma among HCPs, it lacks evaluation for any training programs. Indeed, more evaluative studies are needed in this context.

In this study, physicians and nurses showed negative or discriminatory attitudes as indicated by their higher scores in the RIBS scale. Similar attitudes were reported in different cultures or countries e.g., among community health staff in Guangzhou, China (Giandinoto et al. 2018; Hamilton et al. 2014; Li et al. 2014). Other studies have reported comparable negative attitudes of physicians and staff nurses versus that of the community (Li et al. 2014; Mojtabai et al. 2016; Picco et al. 2016; Reavley and Jorm 2011; Zalazar et al. 2018). Li and colleagues (2014) evaluated stigma among community mental health staff toward people with mental illness in China and found high levels of stigma, with mean scores of 51.69, 16.8 and 11.97 for MIKA, MAKS and RIBS respectively. High levels of stigmatized attitudes was found in a meta-analysis on attitudes of general hospital staff involving eight studies with an overall sample of 2548 health providers (Giandinoto et al. 2018). The authors reported that negative attitudes attributed to lack of knowledge, skills, and resources related to inadequate mental health care (Giandinoto et al. 2018). In Jordan, primary care providers are not fully prepared to care for people with known or identified mental health problems, thus; the encountered negative attitudes toward mental health could make them less likely to provide the mental health quality care.

The existence of negative attitudes affects one's behavior. The prevalence of negative attitudes among HCPs toward people with mental health problems may be due to the stigma, which could lead to unacceptable behavior (Hamilton et al. 2014; Henderson et al. 2013, 2017; Yap et al. 2013). The perceived stigma and the encountered negative attitudes and behaviors not only affect HCPs, but it will also impact the care provided to clients serving primary healthcare services (Bener et al. 2015; Dalky 2012; Dalky et al. 2017). People approaching primary healthcare centers for mental health concerns reported feelings of discrimination, loneliness, hesitation to seek help, denial of the actual complaints, and not full adherence to treatment regimen (Hamilton et al. 2014; Picco et al. 2016; Thornicroft et al. 2007b). Few if no studies found in Jordan about people attitudes and stigma perception toward seeking mental health services in primary healthcare centers. Thus, more studies needed to better tackle the stigma encountered in community healthcare centers and to best formulate interventional training programs for both people and HCPs.

The positive significant correlations between scores were predicted based on the theoretical framework of Thornicroft et al. (2007b). For the physician group, the knowledge affected attitude ( $r = .18, p = .015$ ). For the nurse group, the knowledge affected behavior ( $r = .13, p = .025$ ). These results confirmed and provided further evidence of the interrelationship of the effect of stigma, as proposed by Thornicroft et al. (2016a, b, 2007a, b). This evidence further supports the premise that stigma associated with mental health problems can be fully addressed using interventions or training programs which directed to change knowledge, attitude, and behavior consecutively. Previous interventional studies to reduce stigma included the three components collectively and yielded similar results (Evans-Lacko et al. 2011; Gabbidon et al. 2013; Giandinoto et al. 2018; Li et al. 2014). However, this study lacks an interventional training program, indeed; recommendations made for more studies in this regard.

In this study, significant correlations were found between the age of the HCPs and MAKS (knowledge) in physicians' group. A possible explanation might be that young physicians are not fully trained to provide specialized mental health-related care; they do not have the experience to recognize mental-health symptoms, or a combination of both. In other contexts, knowledge related to mental health care has been studied in conjunction with attitudes and behavior, and efforts invested on training interventions with pre and post measure to identify change in knowledge, attitude, and behavior (Evans-Lacko et al. 2010; Gabbidon et al. 2013; Jorm 2012; Petersen et al. 2016; Thornicroft et al. 2016b). Thus, it is highly recommended to conduct more studies to identify factors associated with knowledge, attitudes and behaviors; components of stigma, and to formulate interventional studies accordingly.

In consideration of the demographic variables of gender, marital status, or experience in this study, no significant relations were depicted. A contrary result was reported by Li et al. (2014) in which female staff indicated less stigma compared to their male colleagues. However, cultural aspects are likely to promote social desirability, wherein nurses, predominantly females, might have provided ideal versus actual responses.

## Conclusion and Implications for Practice

In conclusion, healthcare providers in primary health care settings ought to respond to all health care needs including mental health problems. Indeed, training programs on mental health care must emphasize the accurate knowledge, right communication methods, and optimal behavior expected. Such healthy behaviors of HCPs will help establish therapeutic relationship and the clients respond to their own health needs and adhere to the recommended treatment. However, in addition to training the HCPs, a social change for the clients is essential so that mental health can be enhanced, illnesses can be prevented. Socially displaced communities need to have the feeling of belonging and acceptance, so that their own and the host communities' mental health can be maintained.

Mental health services in primary healthcare centers should enhance and promote healthy interaction that will reduce stigma and its associated discriminatory behaviors. Active workforce in healthcare centers should be trained to be intentional about demonstrating good practice. Training programs for HCPs in these settings will increase mental health literacy, knowledge and attitudes, and will help them to provide better services. Regular continuing education for all those who work in primary care settings will be helpful in improving their knowledge, attitude and behavior.

New ways of delivering the knowledge based on evidence will be more feasible for busy HCPs. Their attitude will foster health seeking behaviors among clients and thus ensure treatment adherence. Research is needed to examine specific factors that can impact the attitude of HCPs and clients. Interventional programs must include community stakeholders and policy makers so that resources can be made available and clients will be supported. By initiating awareness programs at various levels using available tools, such as lecturing, net-working, workshops, field visits, and social media broadcasts, positive messages can be produced and distributed.

## Limitations

This study assessed attitude, knowledge, and intended behavior at one point in time and lacked an interventional program with pre and post measures. The use of cross-sectional study using a convenience sampling suggested caution when it comes to causality or generalization of the study findings. Also, the use of self-reporting surveys could have enhanced the social desirability associated with culturally-bound perceptions, thus compromising the study's outcomes. However, authors spend greatly emphasized study aims and make themselves available for any needed help or clarifications during data collections.

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**Table 1**Demographic characteristics for physicians' group, ( $N=225$ ) and for nurses' group ( $N=316$ )

	Count	%	Range (mean $\pm$ SD)
Physicians			
Age			23–67 (29 $\pm$ 6)
Gender			
Male	134	60	
Female	91	40	
Marital status			
Single	129	57.3	
Married	96	42.7	
Experience			
< 3 years	146	65.5	
3–5 years	54	24.2	
> 5 years	23	10.3	
Nurses			
Age			22–65 years (32 $\pm$ 8)
Gender			
Male	54	17.1	
Female	262	82.9	
Marital status			
Single	112	35.0	
Married	204	65.0	
Experience			
< 3 years	85	26.9	
3–5 years	70	22.2	
> 5 years	161	50.9	

**Table 2**

Scale range of responses and means for physicians and nurses groups of the three instruments of stigma; MICA, MAKS, and RIBS

Scale	Low	High	Mean $\pm$ SD Physicians (n = 225)	Mean $\pm$ SD Nurses (n = 315)
MICA (attitude)	24.00	71.00	51.09 $\pm$ 8.27	48.91 $\pm$ 9.00
MAKS (knowledge)	28.00	59.00	46.26 $\pm$ 5.39	43.44 $\pm$ 4.48
RIBS (behavior)	4.00	20.00	11.67 $\pm$ 4.13	12.31 $\pm$ 4.04

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**Table 3**

Correlations of scales' scores for physicians group, (N = 225)

	Age	MICA	MAKS	RIBS
Age				
Pearson correlation	1	.084	.178*	.037
Sig. (2-tailed)		.185	.010	.519
MICA				
Pearson correlation	.084	1	-.180*	-.055
Sig. (2-tailed)	.185		.015	.384
MAKS				
Pearson correlation	.178*	-.180*	1	.131
Sig. (2-tailed)	.010	.015		.055
RIBS				
Pearson correlation	.037	-.055	.131	1
Sig. (2-tailed)	.519	.384	.055	

\*Correlation is significant at the .05 level (2-tailed)

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**Table 4**

Correlations of scales scores for nurses' group, (N = 316)

	Age	MICA	MAKS	RIBS
Age				
Pearson correlation	1	.084	.074	.037
Sig. (2-tailed)		.185	.209	.519
MICA				
Pearson correlation	.084	1	-.165**	-.055
Sig. (2-tailed)	.185		.009	.384
MAKS				
Pearson correlation	.074	-.165**	1	.131*
Sig. (2-tailed)	.209	.009		.025
RIBS				
Pearson correlation	.037	-.055	.131*	1
Sig. (2-tailed)	.519	.384	.025	

\* Correlation is significant at the .05 level (2-tailed)

\*\* Correlation is significant at the .01 level (2-tailed)