Methodological Tool Contextualization: Gender Awareness Among Primary Health Care Providers in Ramallah and Al-Bireh Governorate

سياق الأداة المنهجية: الوعي الجندري لدى مقدمي الرعاية الصحية الأولية في محافظة رام الله والبيرة

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Birzeit University – Palestine

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Abbreviations

CFA	Confirmatory Factor Analysis
DALYs	Disability-Adjusted Life-Years
FA	Factor Analysis
GA	Gender Awareness
GS	Gender Sensitivity
GRIC:	Gender Role Ideology towards Co-workers
GRIP	Gender Role Ideology towards patients
MoH	Ministry of Health
N-GAMS	Nijmegen Gender Awareness in Medicine Scale
NGOs	Non-Government Organizations
PHC	Primary Health Care
UNRWA	United Nations Relief and Works Agency
WHO	World Health Organization

Abstract

Background:

Gender is one of the important social determinants of health known to be highly associated with health status. WHO has recognized the significance of gender awareness (GA) in health care; because of its role in closing the gender gap in health and accomplishing more genuine connections between health care providers and recipients. Thus, it contributes to better health care delivered for both women and men.

Despite the importance of gender awareness, it has not been addressed and researched in the Arab region including Palestine. In addition, there are no studies addressing gender awareness levels among health care professionals by using a validated international tool.

Objectives: This study aims to contextualize a quantitative tool (N-GAMS) measuring gender awareness in health care among primary health care providers (nurses and physicians) focussing on nursing professionals in Ramallah and Al-Bireh Governorate. This study also aimed to assess the level of gender awareness and the factors associated with gender awareness.

Methodology:

This study was divided into two main sections, the first section is the contextualization of the N-GAM tool, this was done by forward and backward translation of the tool, consulting a gender expert, conducting a focus group, and piloting the tool. In addition to testing its psychometric properties (reliability and validity). The second section included a cross-sectional exploratory design of

gender awareness among primary health care (PHC) general physicians and nurses of all health care providing actors in Ramallah and al-Bireh Governorate

The study was conducted between June and August 2020. Participants were selected from the main three health care providers (MoH, UNRWA, and NGOs). This study used an online questionnaire that included three sections: the first section was the participant characteristics-related questions, the second section was the Nijmegen Gender Awareness in Medicine Scale (N-GAMS) scale, and the third and final section covered other questions related to the previous knowledge and experience in the topic seen as related to the study. The N-GAMS scale was translated from English to Arabic.

Descriptive analysis included the presentation of study variables in terms of Means (M) ± Standard Deviation (SD), percentages (%), and values of the number of units (n). The binary analysis utilized t-test, ANOVA, and Pearson correlations. For the multivariate analysis, standard multiple regression was done. Further, Cronbach's alpha (α) was used to assess the reliability of N-GAMS subscales.

Findings:

The reliability – internal consistency- of N-GAMS subscales with Cronbach's alpha (α) was 0.681 for the GS scale (9 items), 0.658 for the GRIC scale (6 items), and α =0.848 for the GRIP scale (11 items).

The results showed that participants had scored near the midpoint of the gender sensitivity sub-scale (M=2.84, SD=0.486). They also expressed moderate gender stereotypes towards patients (M=3.11, SD=0.624), where females held lower stereotypical thinking. Participants also expressed low to moderate stereotypes towards co-workers (nurses/ doctors) (M=2.72, SD=0.660), also the females

expressed less stereotypical thinking compared to males. Further, the participant's age had some effect on the outcome, specifically the GRIP subscale, while gender was associated with GRIP and GRID subscales. The rest of the social and other variables showed no association with gender awareness subscales.

Conclusion:

This new research adds to our understanding of gender awareness. However, the sample size and nonresponse bias impacted the generalizability of the results. Further tests are required to confirm the psychometric qualities of the instrument.

ملخص

المقدمة: يعد النوع الاجتماعي أحد محددات الصحة الاجتماعية الهامة. لذلك أوصت منظمة الصحة العالمية بأهمية الوعي الجندري (الوعي بالنوع الاجتماعي) في الرعاية الصحية، حيث يلعب الوعي الحندري دورا هاما في سد الفجوة الجندرية في الصحة، بالإضافة إلى تحيقيق تواصل وعلاقات أفضل بين مقدمي الرعاية الصحية والمرضى، مما يؤدي المساهمة في تحسين الرعاية الصحية المقدمة لكل من النساء والرجال. على الرغم من أهمية الوعي بالنوع الاجتماعي، إلا أن هذا الموضوع لم يتم تناوله أو بحثه في المنطقة العربية، بما في ذلك فلسطين. حيث لا توجد دراسات تتناول مستويات الوعي الجندري لدى مقدمين الرعاية الصحية، باستخدام أداة دولية معتمدة.

الأهداف: تهدف هذه الدراسة إلى تسييق أداة كمية (N-GAMS) لقياس الوعي بالنوع الاجتماعي لدى مقدمي الرعاية الصحية الرعاية الصحية الأولية (الممرضين\ات والأطباء\الطبيبات) مع التركيز على الممرضين\ات في رام الله ومحافظة البيرة .هدفت هذه الدراسة أيضًا إلى تقييم مستوى الوعي بالجندر والعوامل المرتبطة به.

منهجية الدراسة: تقسم هذه الدراسة إلى قسمين رئيسيين: القسم الأول هو تسييق أداة الدراسة، وقد تم ذلك عن طريق الترجمة الأمامية والخلفية للأداة ، والتشاور مع خبير في النوع الاجتماعي ، وإجراء مجموعة مركزة ، وعمل دراسة استطلاعية .بالإضافة إلى اختبار خصائص الأداة السيكومترية (الموثوقية والصلاحية). في حين شمل القسم الثاني دراسة استكشافية مقطعية للوعي الجندري لدى الممرضين و الممرضات الأطباء العامين والطبيبات في عيادات الرعاية الصحية الأولية في محافظة رام الله والبيرة. أُجريت الدراسة بين شهري يونيو وأغسطس من عام 2020. تم اختيار المشاركين من بين مزودين الرعاية الصحية الثلاثة الرئيسيين (وزارة الصحة الفلسطينية، ووكالة الأمم المتحدة لغوث وتشغيل اللاجئين، والمنظمات غير الحكومية). استخدمت هذه الدراسة استبيانا إلكترونيا مقسم إلى ثلاثة أقسام: القسم الأول شمل الأسئلة المتعلقة بخصائص المشاركين، والقسم الثاني احتوى مقياس (N-GAMS) للوعي الجندري في الطب ، والقسم الثالث والأخير غطى أسئلة أخرى تتعلق بالمعرفة والخبرة السابقة المرتبطة بالموضوع. تمت ترجمة مقياس الوعي الجندري في الطب من الإنجليزية من إلى اللغة العربية.

تضمن التحليل الوصفي للعينة والمتغيرات على المعدلات، والانحراف المعياري، والنسبة المئوية، و قيم عدد الوحدات. بينما اعتمد التحليل الثنائي على استخدام اختبار تي، وتحليل التباين الأحادي، ومعامل الارتباط لبيرسون. أما بخصوص التحليل متعدد المتغيرات، تم إجراء الانحدار المتعدد القياسي. وقد تم استخدام معامل ألفا كورنباخ لحساب الموثوقية

النتائج: الموثوقية - الاتساق الداخلي – لمقاييس اداة (N-GAMS) للوعي الجندري في الطب: أظهرت قيم ألفا كورنباخ على النحو التالي 0.681 لمقياس الحساسية الجندرية (9 عبارات)، و0.658 لمقياس أيدولوجية أدوار النوع الاجتماعي نحو زملاء العمل (6عبارات). و0.848 لمقياس أيدولوجية أدوار النوع الاجتماعي نحو المرضى (11 عبارات).

أظهرت النتائج أن المشاركين سجلوا نقاطًا بالقرب من نقطة المنتصف لمقياس الحساسية الجندرية بمعدل 2.84 وانحراف معياري = 0.486. كما أظهر المشركون وجود قوالب نمطية جندرية معتدلة تجاه المرضى بمعدل

3.11 وانحراف معياري =0.624. حيث أظهرت الإناث تفكير نمطي أقل. عبر المشاركون أيضًا عن صور نمطية منخفضة إلى معتدلة تجاه زملاء العمل (الممرضات / الأطباء) بمعدل 2.72 وانحراف معياري = 0.660. كما أبدت الإناث تفكيرًا نمطيًا أقل مقارنة بالذكور. علاوة على ذلك ، كان لعمر المشارك تأثير محدود على الوعي الجندري، تحديداً مقياس أيدولوجية أدوار النوع الاجتماعي نحو المرضى . بينما ظهر تأثير جنس المشاركين على كلا من مقاييس أيدولوجية أدوار النوع الاجتماعي نحو المرضى و تجاه زملاء العمل. بينما لم تظهر بقية المتغيرات الاجتماعية والمتغيرات الأخرى أي ارتباط بالمقاييس الفرعية للوعي الجندري.

الخلاصة: يضيف هذا البحث الجديد إلى فهمنا للوعي بالنوع الاجتماعي. ومع ذلك، أثر حجم العينة والتحيز في عدم الاستجابة على تعميم النتيجة مع حاجة إلى مزيد من الاختبارات لتأكيد الصفات السيكومترية للأداة.

Chapter One: Introduction, Background, Context. The problem statement, Objectives, and Theoretical Framework

1.1 Introduction

In healthcare, it is significant to cautiously recognize the differences and similarities between women's and men's health needs. It is well-documented in research that women and men have significant differences in health matters including how they present their worries, experience disease symptoms, or risk factors (Eisenberg et al., 2013). In addition to the differences in mortalities and morbidities rates between them.

In this respect, gender as a social determinant of health, is considered a significant driver of these differences (Bates et al., 2009). Thus, gender consideration in healthcare should reflect the attention to the life circumstances, society ranks, and the beliefs on 'masculinity' and 'femininity' concepts alongside the biological aspect in every healthcare professional-patient interaction, and while theorizing about men and women health matters (Risberg et al., 2006; Risberg, et al., 2008).

If health care professionals fail to identify and be aware of these differences, it will negatively impact both women and men patients (Eisenberg et al., 2013). Therefore, during the previous two decades, gender awareness has been recognized as an important factor in the interaction between health care professionals and patients, and in affecting health outcomes (Eisenberg et al., 2013). Additionally, elevated gender awareness levels are considered essential for accomplishing genuine connections with patients and contribute to achieving a

higher health care quality delivered for both women and men (Doyal, 2003; Verdonk et al., 2008). Indeed, health care professionals' gender awareness is a possible mechanism to reduce health gender biases, a potential domain that affects gender equity/equality in health care (Morais et al., 2019; Seyfeli et al., 2019). Further, it has been acknowledged that any health system that is not gender-sensitive and aware will not be able to handle the needs of both men and women sufficiently; thus, it is considered an unsatisfactory system (Verdonk et al., 2008).

In this respect, developing a valid and reliable measure of gender awareness form a foundation for supporting the argument that elevating health professionals gender awareness will aid in preventing gender biases in health care and, eventually, evaluating the efficiency of intervention programs meant to increase health care professionals' gender awareness (Morais et al., 2019). Efforts have been made to conceptualize and operationalize the concept of gender awareness including the N-GAMS instrument, which will be utilized in our study.

However, in order to utilize the N-GAMS tool in this study, there is a need to contextualize and adapt the tool to the Palestinian context. This will include the process of translating the tool from English to Arabic, pointing the tool, and testing its psychometric properties.

1.2 Background

The Palestinian Context

The occupied Palestinian territory (oPt) is a low-middle-income country, which is currently under Israeli occupation, causing the division of the country into two

administratively separated geographical areas: the West Bank and Gaza Strip (Bates et al., 2017), and into three more territorial zones: A, B, and C; as a result of Oslo Accords. The Israeli occupation affected all aspects of the Palestinians' lives and violated their human rights. Occupation practices and actions hindered access to education, health, and social services (Abu Duhou et al., 2015). Thus it caused the Palestinian settings to be unique, complex, and conflict-affected (Bates et al., 2017).

According to the World Bank, the total Palestinians' life expectancy at birth in 2017 was 74 years; 72 years for males, and 75 years for females (World Bank, 2019). Generally, the health system in Palestine is characterized by being fragmented, over-loaded, and under-resourced (Bates et al., 2017). There are four key health providers that deliver primary, secondary, and tertiary health care in the area: Ministry of Health (MOH), UN Relief and Works Agency (UNRWA), Non-Governmental Organizations (NGOs), and the Private Sector. Financing health services occurs through multiple channels such as health insurance, taxes, out-of-pocket payments, loans and grants via the international community, and in-kind donations and local community financial aid (Mataria et al., 2009)

On the other hand, Palestinian households and communities hold a patriarchal construct, with men holding the dominance and the majority of influence in social situations and relationships. Gender relations continue to be a source of concern, as laws, norms, and practices continue to give men authority over women. All major decisions are made by men, thus women are supposed to be respectful and subordinate. Men are supposed to participate in the public arena, such as working

and earning wages, while women are expected to be responsible for child-rearing and home issues in traditional gender relationships (Said et al., 2018).

Gender inequalities in both West Bank and Gaza Strip have a unique gender structure. It is marked by a long history of women's political participation and ambitions for gender equality, which is combined with a historically male-dominated culture and social structure. Simultaneously, the Israeli occupation's restrictions alongside the Palestinian factions political divisions are causing significant shifts in gender relations (Said et al., 2018).

Moreover, the occupation places a burden on Palestinian men, which is often drained on women and recreated at home. Men feel helpless and weak when their manhood and masculinity are questioned, whether directly by Israeli forces and settlers or indirectly by the poverty and lack of economic opportunity enforced by the Occupation. Such feelings may lead men to try to regain their dominance and control over weaker individuals, such as their wives or children (Said et al., 2018).

In this respect, deficiencies in and access barriers to health services make health care in this context to be more challenging. For instance, diagnostic testing in the Palestinian health system is usually restricted to particular geographic locations or hospitals, besides the specialized surgeries being limited in Palestinian hospitals (e.g., reconstructive surgery after breast cancer). Thus, demanding a lot of women to get these services in Jordan or Israel, creating several political and economic barriers for Palestinian women healthcare-seeking (Bates et al., 2017).

Further, gender stereotyping, and gender roles influence all dimensions of women's and men's lives, including their sexual and reproductive health (SRH) (Abu-Zaineh, 2013b). For instance, a study done by the Palestinian Medical Relief

Society (PMRS), found that SRH services providers consider the Palestinian traditions, perceptions of sexual and reproductive health, and social norms, as the most important faced challenges in their field (Hamdan & Imam, 2019).

Moreover, modesty and norms indicate the female's health-seeking tends to happen only when disease symptoms appear. Also, females living behind the green line recorded low rates of female-associated preventive care (e.g., screening of cervical cancer), which is explained partly by issues of modesty (Bates et al., 2017).

Gender in the Palestinian policy;

The Palestinian Ministry of Health National Health Strategic Plan for the years between 2017-2022 emphasized gender integration. It aimed to develop gender-related interventions and programs (Aker, 2016), which also aligns with the objectives of the National Strategy for Reproductive and Sexual Health in Palestine for the years 2018-2022.

1.3 Significance

In parallel with the needs of Palestinians, it is important to assess gender awareness levels among primary health care professionals, and have a contextualized tool that could be used in identifying gender attitudes that also can be used to measure outcomes of intervention projects and the effects of training programs and other interventions and build capacities.

A gender-based analysis of the Palestinian Public Health Sector Services recommended raising the awareness of workers in health institutions to gender concepts and their role in developing different health patterns (Abu-Zaineh, 2013a). They supported that health professionals should have a fundamental

understanding of the subject, and build their capacities to analyze gender, to determine difficulties that obstruct achieving gender justice in health (Abu-Zaineh, 2013a).

However, despite the importance of gender awareness, it has not been addressed and researched in the Arab region generally and in Palestine specifically. There are no studies addressing gender awareness levels among health care professionals by using a validated international tool. Therefore, this study aims to explore this topic for the first time in the Palestinian context. This study aims to contextualize a quantitative tool (N-GAMS) measuring gender awareness in health care among primary health care providers focussing on nursing professionals in Ramallah and Al-Bireh Governorate.

1.4 Problem statement

The problem of this study is the gap in knowledge regarding gender awareness in health care issues among primary health care providers in the Arab region including Palestine, in addition to the absence of a contextualized instrument targeted toward addressing the issue of gender awareness.

1.5 Objectives

This study aims to contextualize a quantitative tool measuring gender awareness in health care through translating and adapting an Arabic version of an international tool (N-GAMS) quantitatively among primary health care general physicians and nurses in Ramallah and Al-Bireh Governorate. The study also aimed to assess the level of gender awareness, and the factors associated with gender awareness among primary health care general physicians and nurses in Ramallah and Al-Bireh Governorate.

1.6 Theoretical framework

The World Health Organization (WHO) defines gender awareness as "understanding that there are socially determined differences between women and men based on learned behavior, which affect their ability to access and control resources" (WHO, 1998). Gender awareness could be also defined as the "ability to view society from the perspective of gender roles and how this has affected women's needs in comparison to the needs of men" (Rrustemi et al., 2020).

In healthcare, previous research has operationalized the concept of gender awareness into three main sub-components: two attitudinal components (1) gender-sensitivity, (2) gender-role ideology, and (3) knowledge (Verdonk et al., 2008; Salgado et al., 2002).

Regarding gender sensitivity, it could be defined as the 'ability to perceive existing gender differences, issues and inequalities and incorporate these into strategies and actions' or as 'the perceptiveness and responsiveness concerning differences in gender roles, responsibilities, challenges and opportunities' (Verdonk et al.,2008).

Health care characterized as gender-sensitive highlights specific characteristics, experiences, and life events that are more prevalent in one gender than the other. Gender-sensitive health care strives to promote gender equality by considering gender where appropriate (Verdonk et al.,2008).

On the other hand, gender-role ideology refers to a health care worker's attitude towards female and male patients and co-workers. Gender, age, socio-economic position, and ethnicity all represent social indicators that may be used to generate

stereotypes. According to Fiske Stereotype Content Model, stereotype content is influenced by systematic principles arising from interpersonal and intergroup interactions (Verdonk et al.,2008).

Verdonk and colleagues have argued that both (social and biological) visions are essential; consequently, they adopted a broader concept of gender awareness, focusing on attitudinal components of gender awareness (Verdonk et al., 2008), which will be used in this study to address the topic of gender awareness,

The N-GAMS assesses three dimensions of gender awareness: gender sensitivity, gender-role ideology towards patients, and gender-role ideology towards doctors (Verdonk et al., 2008).

Gender sensitivity, that is, the degree to which medical students are sensitive and sympathetic to the impact of gender in medical practice (14 items). Gender-role ideology towards patients that is, health care providers stereotypical views towards male and female patients. Gender-role ideology towards co-workers s, that is, medical students' stereotypical views towards male and female co-workers (GRIC). (Verdonk et al., 2008)

Chapter Two: Literature Review

2.1 Gender as a social determinant of health

Several factors interact to shape human health, known as health determinants. These determinants could be biological, social, and environmental (Gattino et al., 2019). A high proportion of health issues is attributable to the social circumstances in which people work and live, noted as the social determinants of health (Braveman & Gottlieb, 2014; Irwin et al., 2006). For instance, neighbourhood conditions, working conditions, race, income level, education level, and gender, all are examples of social determinants of health (Braveman, Egerter, & Williams, 2011; Phillips, 2005). These social determinants explained many health outcomes of individuals and populations that could not be explained by biological differences only (Phillips, 2005).

Gender is a significant social determinant of health. It is recognized by WHO as one of the 'structural drivers' generating unequal living conditions, which will eventually raise the inequalities in health (Bates et al., 2009; Connell, 2012; CSDH, 2008).In this perspective, while, men and women differ biologically (sex), which is responsible for different health needs and risks. They also differ in the assigned social responsibilities and roles (gender), which is in turn, possibly affect health behaviors, outcomes, and accessibility to and the use of health services (Carretero, et al., 2014; WHO, 2011).

Specifically, sex refers to the "person's biological status as male, female, or intersex" (Heise et al., 2019). Sex is associated with secondary sex-characteristics such as sex hormones, sex chromosomes, internal reproductive organs, and

external genitalia, all are considered as indicators of biological sex (Darmstadt et al., 2019; Krieger, 2003). On the other hand, gender refers to "the culturally defined roles, responsibilities, attributes, and entitlements associated with being (or being seen as) a woman or man in a given setting, along with the power relations between and among women and men" (Heise et al., 2019).

Thus, the interaction between sex and gender may contribute to the differences in health outcomes, mortality, and morbidity between women and men (Carretero et al., 2014).

2.2 The emergence of gender as a new concept

As discussed by Raymond Williams, adding new terms or giving new meanings to old terms into languages, will enable its vocabulary to perform a role in representing/reflecting significant historical and social events and outcomes. However, If we check any public health or biomedical journal up until the 1970s, one term will be distinctly missing: gender. In this case, the term gender, initially originated from the "Latin word 'generare', to beget", was added to English, as a response to the unspoken /covert and often overt biological nature saturating the lay and scientific language (Krieger, 2003). Consequently, the interpretation of the term gender has evolved from a grammatical technical term (referring to whether nouns in Latin and related languages were 'masculine' or 'feminine') to a term of social analysis (Krieger, 2003).

Historically the terms gender and sex have been investigated by multiple psychologists and other social scientists. The publications and research of John Money (1921–2006), who was a psychologist that worked on the clinical management and treatment of intersex infants at Johns Hopkins University, and

his colleagues; recorded the first distinguish between an individual's sex and gender psychology. They utilized these terms in a way that is comparable to how they are used in modern psychological literature. Money believed that gender norms could be taught and maintained. Moreover, Money and Ehrhardt (1972), defined, in their classic book, gender role as "the public expression of gender identity'' and gender identity as "the private experience of gender role" (Rutherford, 2019; Muehlenhard & Peterson, 2011).

Another important contribution for gender theory in psychology was made by Robert Stoller's (1924–1991), In the late 1950s, He was the author of '*Sex and Gender'* book *(1968): On the Development of Masculinity and Femininity*, in addition to having a medical degree, he was trained in Freudian psychoanalysis. He founded the Gender Identity Project at the University of California Los Angeles Medical School to examine what was then known as "transsexualism". Stoller's made a further differentiation between gender identity, where Money considered gender identity and gender role as being more or less interconnected, as two sides of the coin and made a significant contribution toward conceptually separating sex from gender in a way that is very helpful for the later feminist theorizing. (Rutherford, 2019; Muehlenhard & Peterson, 2011).

However, up until the 1970s, Rhoda Unger argued that the common practice of using the term sex focuses on the biological causes, which supported the indication that the differences between men and women are unchallengeable and natural. Thus, suggested using the term gender to label the culturally assumed to be appropriate traits for men and women (Muehlenhard & Peterson, 2011). Furthermore, the work Ann Oakley's first book *''Sex, Gender and Society* '' (1972)

had shown a guarantee to the analysis of social structure along with gender line, book discussed the work of Robert Stoller and John Money, as well as Margaret Mead's work (Muehlenhard & Peterson, 2011).

The adopted term aimed to facilitate academics and activists' clear thinking, in the period of the growing women's movement. This period witnessed debates over, if the observed differences between men, women, boys, and girls, in terms of non-reproductive health outcomes, social roles, and performances, are caused by inborn biological differences (sex) or due to the culturally associated conventions (gender) (Krieger, 2003). Indeed, upon the gained important notice in the past century, there has been a dramatic change in the theoretical understanding of gender concepts (Risman & Davis, 2013).

However, until now, confusion is still surrounding the perception and the employment of the terms sex and gender in both scientific health literature and the popular discourse. The terms are employed either interchangeably or as distinct constructs (Darmstadt et al., 2019; Heise et al., 2019; Krieger, 2003; Risberg et al., 2006), and the term gender is frequently mixed up as a synonym of women and girls (Hankivsky, 2012; Krieger, 2003). However, even though some efforts are being done in this respect, for instance, funding organizations in the USA, Canada, and Europe require taking gender and sex as a grant application condition, scientific journals are progressively adopting the need to issue sex-disaggregated data, and support is received from the scientific society in this regard (Oertelt-Prigione, 2020). Yet, the issue still needs more attention, and systematic actions to be made (Oertelt-Prigione, 2020).

2.3 Social production of gender

Gender is known in sociology and feminism to operate as a social system in which women and men are defined as different. These differences between women and men control the distribution of how the resources and power are distributed in societies (Heise et al., 2019; Ridgeway & Correll, 2004). Thus, the gender system is defined as "the structures, social relations, and processes that define males and females as different in socially significant ways and justify inequality based on that difference. Each society creates and maintains a system where women and men are assigned different tasks, roles, and social positions. Most existing gender systems consider things deemed male/masculine superior to those deemed female/feminine" (Darmstadt et al., 2019). Accordingly, as social conditions change the associated social expectations will conceivably change; thus, the given roles to women and men will also change, indicating that gender roles are not fixed in nature (Ridgeway & Correll, 2004).

Gender, norms, and systems affect all the age stages and life prospects. Indeed, its effect starts even before birth (Heise et al., 2019). Studies indicated that parental behavior regarding their infants differs once the sex is identified (Heise et al., 2019). This is referred to as gendered parenting, which is "the messages children receive from their parents related to how boys and girls should and should not behave" (Mesman & Groeneveld, 2018).

Later on, as children continue to grow, they take in overt and covert messages regarding what should be valued, who holds power, and how they should behave (Heise et al., 2019). This is also known as gender socialization "the process of individuals developing, refining and learning to 'do' gender by internalizing

gender roles and norms during their interaction with leading operators of socialization, including their family, social networks, and other additional social institutions. " This process starts in the family, and then it is reinforced or contested through teachers, peers, leaders, social networks, and interacting with the media (John et al., 2017).

In reality, when children reach ten years old, they will be already ingested their society's norms regarding acceptable gender behavior (Blum, Mmari, & Moreau, 2017). When puberty starts, girl's opportunities and freedom, in contrast to boys', become more narrow and limited, more notably in developing countries (Heise et al., 2019). From this perspective, gender differences in health conditions and outcomes will be developing more apparently in the adolescence stage in which boys and girls will experience puberty and face significant changes in life transitions (UNICEF South Asia, 2017). Consequently, the individuals' attitudes, experiences, opportunities, behaviors, and opportunities will bring along significant health consequences during the rest of their life span (Weber et al., 2019).

Moreover, gender cannot be classified as a homogeneous analytical division (Risberg, 2004). It happens against a complicated background of multiple social health determinants (Houghton et al., 2016). Indeed, intersectionality is a characteristic of gender, where gender interacts with other divisions, including age, ethnicity, social class, and so forth, which will influence power, freedom, and accessible choices, and eventually health (Risberg, 2004).

2.4 Sex, gender, and health

In this frame, gender health differences between women and men do exist (Risberg, 2004). However, in practice, it is not usually an easy task to isolate the effects of gender and sex on health (Regitz-Zagrosek, 2012; Risberg, Hamberg, & Johansson, 2003). Still, gender and sex should not be handled as separable and fully exclusive domains (Krieger, 2003; Siller et., 2017). Even though, biological sex alone can be responsible for a few health outcomes that could not be affected by the gender system (Heise et al., 2019). Thus, sex is responsible for a small portion of the differences in health outcomes, while gender is accountable for the rest. (Clark & Horton, 2019; Weyers et al., 2017). This is contradictory to previously applied explanations, where they used only the social or only the biological differences to explain the differences in health outcomes(Bird & Rieker, 1999).

For instance, considering the epidemiology of cancer as an illustrative example; sex differences in biology, in this case, will mean that cervix cancer will develop only in women, while prostate cancer will arise in men only. On the other hand, biology alone cannot give a reason for the higher incidence of lung cancer among men in comparison to women. In this matter, gender as a social concept will be utilized. It will show that men are socially accepted and encouraged to practice particular lifestyles and risky behaviors such as smoking, which aided in explaining the differences in incidence (Doyal, 2003).

However, there are less apparent paths in which biological differences play in `the production of the differences in health outcomes. For instance, males are more exposed to chromosomal defects since they carry a single x chromosome. At the same time, females have a higher response to vaccines, because they have a more

aggressive immune system. But it also means that women have an increased probability of developing autoimmune diseases (Heise et al., 2019; Wang et al., 2016). Thus, biological differences between males and females should be considered, given that they are involved in bodily functions and etiopathogenic processes (Weyers et al., 2017).

Furthermore, gender is known to be highly associated with health status (Kuhlmann & Annandale, 2012). An invisible yet inseparable link between gender and health is established (Seyfeli et al., 2019). The interaction between society and sex determine who is going to be ill or healthy, who is treated or not, who is exposed or vulnerable to ill health whose behavior is risk-prone or risk-averse, and whose health needs are acknowledged or dismissed. The results of this interaction will differ depending on the settings (Phillips, 2005; Sen & Ostlin, 2008), as shown in figure (1). Thus, Both sex and gender differences have a crucial influence on the health of individuals (both women or men), along with determining population health and illness patterns (Doyal, 2003).

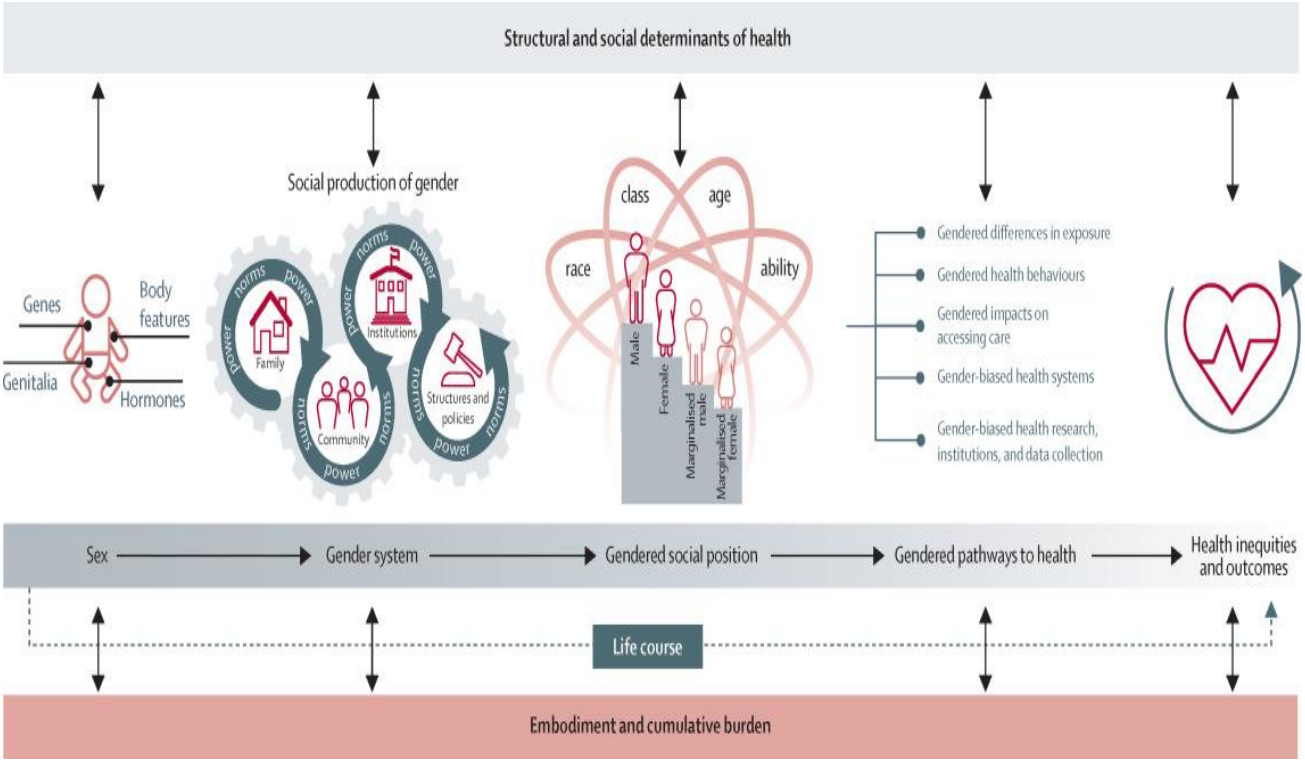

Figure 1: "Conceptual framework of the gender system and health" (Heise et al., 2019)

Furthermore, statistical data demonstrated apparent differences between men's and women's health (De Visser, 2019). An example of many of the differences produced due to the interaction between gender and sex in health outcomes is life expectancy (Bates et al., 2009). Where sex alone cannot comprehensively explain the differences in life expectancy (Weyers et al., 2017), evident differences exist among genders in this regard (Weyers et al., 2017). Data from 190 nations and territories between 1970 and 2016 showed that, at a global scale, women life expectancy was mostly higher than men life expectancy, with an approximated life expectancy at birth in 2016 of 69·8 years for men, and 75·3 years for women (Wang et al., 2017). However, Women have a higher morbidity rate than men. Women are affected by disabling chronic conditions, while men suffer from more lethal conditions. Even though both women and men face somewhat different

health issues, we can not characterize one sex to be healthier (Crimmins et al, 2019).

The excess in mortality among men usually could be due to accidents, suicide, and some illness, including heart attacks, liver cirrhosis, and lung cancer. However, regarding pathological processes, some differences might be more disadvantageous for females, while other differences might be more disadvantageous for males. For example, males develop coronary heart diseases (CHDs) earlier than females. While females have a higher probability of being treated for mental illness in comparison to males (Weyers et al., 2017).

Moreover, Weber and colleagues (Weber et al., 2019), determined the most 15 causes of disability-adjusted life-years (DALYs) which affected boys or men and girls or women disproportionately around the globe. More than 1:40 of the breast cancer male-to-female DALY ratio is chiefly sex-driven. While around 1:3 male-to-female DALY ratio of eating disorders are linked with gender-associated factors, further, road traffic injuries occur more frequently in men in comparison to women. Explaining almost 4% of male all-causee age-standardized DALYs and revealing masculine gender norms attached to driving, alcohol, and risk-taking (Weber et al., 2019).

Gender and sex also meet with additional social factors, which will affect the DALY ratio between men and women (Weber et al., 2019), including differences in the health-associated habits, working and living environments, and how they use health care

Additional gender differences in health care exist, such as differences in perception of health, using precautionary measures, reporting of symptoms and illnesses, using drugs prescription, and referral to or accepting specific surgical treatments including heart transplantation, or pacemaker implantation (Bertakis et al., 2000; Regitz-Zagrosek, 2012).

In summary, gender health issues are those issues where the gender or sex of the health care worker or the patient is or could be relevant. It could refer to "diseases or conditions unique to, more prevalent in, or more serious in men or women, including diseases for which manifestations, risk factors, interventions differ in men and women" (Verdonk et., 2008).

2.5 Gender pathways to health

As suggested by Heise and colleagues, there are multiple gendered pathways to health. As shown in figure (1). Those pathways are (1) gendered differences in exposure, (2) gendered health behaviors, (3) gendered impacts on accessing care, (4) gender-biased health systems, (5) gender-based health research, and institutions and data collection (Heise et al., 2019). The pathways will be explained below:

(1) Firstly, differences in individual exposure to health hazards and risks as a consequence of their assigned gender roles. If we take occupation type as an applicable example (Heise et al., 2019; Phillips, 2005), we can see that even though, there is an overall increase in the presence of females in the labor force, the distribution of females and males in economic activities is still dependent on what is seen to be suitable for their bodies and social roles (Campos-Serna, et al., 2013; Heise et al., 2019).

Therefore, men have a higher probability of occupying jobs that require a higher physical demand, such as construction, mining, heavy production, and protection. While jobs related to care or services, are more probably to be occupied by women. Nevertheless, men and women who occupy the same job title, typically perform different tasks and get unalike salaries (Eisenberg et al, 2013; Heise et al., 2019).

As a result, women and men are exposed to different levels of illness, injury, and disability (Heise et al., 2019). Consequently, women have a higher chance of being exposed to some substances related to the workplace. For example, females could be more exposed to hair dyes, cleaning products, and textile dust, which will lead to the development of health conditions like asthma. (Eng et al., 2011; Heise et al., 2019). Besides, the associated lousy working postures, and very high repetitive motions, will cause musculoskeletal conditions (Campos-Serna et al., 2013; Heise et al., 2019). Moreover, gender-domestic responsibilities assigned to women, and their participation in the care economy,will further impact their health status (Campos-Serna et al., 2013; Eng et al., 2011; Heise et al., 2019). Indeed, evidence has indicated that women from Palestine consider the health status of their family members more significant than their own.. At the same time, men have a higher risk of been exposed to harmful chemicals, noises, vibrations, acute traumatic injuries/ trauma, and experience work-related injuries caused by heavy lifting, falling out, and electroshocks (Campos-Serna et al., 2013; Eng et al., 2011; Heise et al., 2019). Thus they have a higher possibility of premature mortality due to occupational injuries (Doyal, 2001).

(2) Secondly, gendered health behaviors: hazardous masculinities and toxic femininities. In addition to the possible risks associated with the work environment, a lot of men feel obligated to undertake risky and dangerous behaviors to validate their masculinity (Doyal, 2001). Some aspects of masculinity could endorse men to do certain behaviors that will harm their health in return for a higher social status (Doyal, 2001; Heise et al., 2019; Sen & Ostlin, 2008).. These include irresponsible driving, not reaching for medical care, sexual risk-taking, violence, drug use, and aggressiveness (Heise et al., 2019). Therefore, males are more likely to be killed or to die due to car accidents or in hazardous sports activities in compression to women (Doyal, 2001). On the contrary, feminine norms may possess a conflicting effect on women's health. The confliction is observed when certain norms restrict women to move freely, drink, smoke, and sexually express themselves, in some contexts, which might form a protective health effect on women's health (Heise et al., 2019). However, hazards such as eating disorders, violence, and sexually transmitted diseases, are associated with harmful health outcomes among women (Heise et al., 2019). Moreover, since the look of the female feature (societal standards for attractiveness) is seen as very important (Houghton et al., 2016), risks associated with using toxic and dangerous beauty products, and plastic surgery, further impacted women's health (Heise et al., 2019).

(3) Thirdly, gender impacts on accessing health care. For example, gender norms expect (what they call real men), to show strength when they are sick. While (good women), should focus on pleasing, caring for, and prioritizing their family's members' needs rather than their health/ at the expense of their health (Heise et al., 2019; Houghton et al., 2016). Differences between males and females have been

reported in several domains of health care delivery, including preventive, inpatient, outpatient (Khera et al., 2013).

Men underusing the health care system is a result of social issues. Men are usually expected to 'tough it out' and utilize health care services less frequently or procrastinate their use (Kuhlmann & Annandale, 2012). For example, the necessity to be viewed as "hard" might stop men from discovering their caring part. Their opposition to accept weakness could block a lot of males from receiving and earnestly accepting health promotion and awareness messages, visiting physicians, and seeking professional help when health issues occur. Moreover, men may fear the disease itself particularly, due to its ability to decrease their "masculinity". A direct connection has been found between refusing help and the denial of weakness as the main form of masculinity and help-seeking behavior (Hunt et al., 2011). Further, a meta-analysis has shown a relationship between pain scales and masculine and feminine personality trait scales, in experimental settings. The analysis showed that high masculinity scores were associated with high pain tolerance, while high femininity scores were associated with high pain sensitivity (Alabas et al., 2012). Thus, a lot of men have to face and fight internal hindrances to obtain the best value from the available health services (Doyal, 2001).

Moreover, multiple data resources indicated that the mean utilization rate of primary health care (PHC) services are higher in women in comparison to males, in countries where women have access to health care services (Hunt et al., 2011; Verdonk et al., 2008).

However, some obstacles stem from cultural factors that potentially can restrain women from utilizing health care services, such as preventing them from traveling alone or even consulting a male health care provider. Likewise, clinic location, working hours, and transport limitations can also influence female access (Payne, 2014). Furthermore, insufficient awareness or information (among women, their families, and health care professionals the presence of medical issues) and the acknowledgment (recognition that something should and can be done about the health problem), are significant obstacles to women accessing and fully utilizing health care services (Sen & Ostlin, 2008).

(4) Fourthly, gender-biased health care systems. The majority of health systems are characterized as being very gendered either by bolstering gender inequalities and enhancing gender norms found in health care delivery or the bias in health workforce labor divisions (Gupta et al., 2019; Heise et al., 2019).

For instance, usually, jobs that are predominantly occupied by men (e.g., physicians and surgeons) are given a superior rank to positions predominantly held by women (e.g., midwives and nurses). Even in the same profession, men receive higher payment and compensation than women (Heise et al., 2019; Kuhlmann & Annandale, 2012). Indeed, in nursing, as a female-dominated profession, females rank in lower positions than males. In this case, administrative positions are more likely to be occupied by male nurses. This might be attributed to gender stereotypes assuming men would have a more direct linear, less complex, and continuous career path than women (Verdonk et al., 2008). Thus, gender stereotypes influenced women's career advancement opportunities (Bates et al., 2009; Risberg, Johansson, & Hamberg, 2011; Verdonk et al., 2008).

Further, health care systems usually, interpret and consider women's physical symptoms and health complaints as psychosomatic instead of physical real causes, due to women being stereotyped and generalized as fragile, delicate, overdramatic, sensitive, and overemotional (Heise et al., 2019).

(5) Gender-biased health research, institutions, and data collection. Gender bias in medical research refers to the systematic neglect of one gender or sex (Hamberg, 2008; Siller et al., 2017). Several gender disparities are found in the research process such as: neglecting the collection of sex and gender-disaggregated data in research projects or higher data systems, non-gender sensitive research methods, gender imbalanced research ethics committees and advisory bodies, and the distinct treatment of female scientists (Risberg, 2004; Sen & Ostlin, 2008).

Indeed, in clinical research, their issues such as the under-representation of and exclusion of females from their study sample, where male animal models are dominating the majority of biomedical areas (Heise et al., 2019; Zucker & Beery, 2010). Even though much research has justified the usage of female animals is reliable and valid for many traits (Zucker & Beery, 2010). Thus, generalizing males' results and findings on non-pregnant females, and not taking into consideration the health needs of pregnant women, impacted the health of those affected populations (Heise et al., 2019; Phillips, 2008). Thus, women's underrepresentation in medical studies has led to restrained and inaccurate information regarding women's health (Hamberg, 2008). Furthermore, even though women are participating more in different fields of science (e.g., engineering, medicine), yet, women have lower odds to be the author of the publications or to submit a paper,

accrue citations, invitation to give presentations, or occupy leadership positions, and obtain fundings for grants (Heise et al., 2019).

2.6 Gender in Health Care

2.6.1 Myths on gender and health

There are several myths and misconceptions surrounding gender and health that have been identified, forming a barrier to achieve health equality/equity. Including: "Gender norms do not affect health outcomes, " "Gender norms are entrenched and cannot be changed", "Gender norms are elusive and cannot be measured,"(Gupta et al., 2019)"All this talk of gender, but what they mean is women," "We have a women's project, and therefore we have mainstreamed gender," "Working with 'gender' rather than a 'women's focus means that there is no place for 'specific actions' focusing on women as a separate target group," "Gender equality means that women and men are the same," "We are here to save lives, not to ask whether someone is a woman or a man," and"Only gender advisors are responsible for addressing gender issues" (Giorgis, 2010).

2.6.2 Gender bias in health care

A main driver of the health-associated inequities is the gender biases in health care and medicine, i.e., systematic and unintended negligence of a specific gender, in health care (Hamberg, 2008; Hammarström et al., 2016; Morais et al., 2019). The term bias stands for 'distortion' or 'prejudice'. Gender bias and stereotypes production and preservation in clinical medicine and health care impacted several health care domains such as the interpretation of medical symptoms, and therefore medical treatment, diagnosis, and the management of patients (Gattino

et al., 2019; Hølge-Hazelton & Malterud, 2009). Indeed, research has illustrated that in clinical practices, these are possible domains, in which non-evidence-based differences take place/ emerge. The majority of studies in this field focused on CHDs, kidney diseases, neck pain, depression, Parkinson's diseases, colorectal cancer, psoriasis, and irritable bowel syndrome, knee osteoarthritis. As conditions in which men are investigated and treated more heavily than women that have equal symptom severity (Hamberg, 2008; Risberg et al., 2006; Risberg et al., 2011). Further, men's needs are failed to be noticed, as seen in under-diagnosed depression in men (Gattino et al., 2019).

Moreover, bias could be either explicit or implicit. Contrary to explicit prejudices (e.g., the belief that women men are more competent surgeons than women), implicit bias happens without mindful consciousness and is usually at odds with one's personal beliefs (Chapman et al., 2013). Implicit bias might restrain women's advancement in the health care field. For instance, female doctors are usually addressed as nurses rather than doctors, or their first name is used instead of their titles in the first meeting (Salles et al., 2019).

2.6.3 Gender and health care workers

Upon graduation, the majority of health care providers follow the Hippocratic Oath, where they vow "to treat every patient as a respected individual. " Thus, as they start practicing medicine, they are required to achieve high-quality medical care consistently by applying evidence-based principles of medicine and fulfilling related performance standards. Yet, gaps in health care from the side of the health care providers are persistent. "Bias, stereotyping, [and] prejudice ...", are all

classified as significant factors that produce and maintain these gaps (Chapman, Kaatz, & Carnes, 2013).

Everybody, including health care professionals, practices gender in every type of social interaction. Indeed, studies from Nordic regions further emphasized the role of doctors' gender-related values, beliefs, norms on the health care provided for both female and male patients, in addition to the function of doctors' professional preferences, picks, and choices (Verdon et al., 2008).

For example, doctors asking their patients about their families. Doctors ask female patients more than male patients about family matters, in this case, doctors are showing the influence of gender on them by seeing family matters as women's issues; thus, they are further contributing to and enhancing this idea. Therefore, if doctors start asking male patients more frequently about their family matters, it will be a way of challenging gender concepts (Risberg et al., 2011).

Also, gender affects health care professional's interactions and responses with their patients (Bertakis, 2009; Çelik, 2009; Gattino et al., 2019; Risberg et al., 2003). Both patient and the physician bring their socio-demographic characteristics, beliefs, attitudes, expectations, and communication styles to the consultation room. It has been found broadly, that male and female physicians have different communication styles. These different styles will affect multiple health care domains, such as patient recall, patient adherence to treatment, patient satisfaction, and health outcomes (Alyahya et al., 2019; Bertakis, 2009). Further, a meta-analysis has found that rapport-building behaviors, including optimistic talks, supporting, and lowered dominance, are more likely to be shown by a female

physician. Indicating those female physicians in comparison to male physicians, practice more effective behaviors such as sympathy, empathy, and concern (Jefferson et al., 2013).

Given that health care workers may treat males and females based on gender norms instead of individual patient needs (Samulowitz et al., 2018), Vogt and colleagues have suggested that health care professionals should be aware of and active towards patients' unique concerns and needs, as apart of a bigger framework that will ensure optimal health care outcomes (Vogt, Barry, & King, 2008).

2.7 Gender awareness in health care

Even though gender stereotypes production and preservation in clinical medicine impacted medical treatment, diagnosis, and the management of patients (Gattino et al., 2019), a rising notice in the importance of women's health problems throughout the past two decades has driven the awareness of the significance of gender in medicine and health care. Awareness generally focused on differences between male and female patients along with gendered management of diseases (Risberg et al., 2003).

WHO has recognized the significance of gender and gender awareness in health care. Thus, WHO has been working on endorsing health among genders, detecting inequalities, and tackling them. Therefore, there is an established program hosted by WHO devoted to gender equity in health care, besides promoting and enhancing health care professionals' awareness regarding gender values, norms, and inequalities in developing and maintaining diseases, disability (morbidity), and death (mortality) (Cordina, 2014).

Thus, gender awareness conveys that the health care worker holds gender-sensitive attitudes, along with the knowledge of and understanding the whole meaning and sense of gender in illness and health, along with the skills required to apply their visions to the medical practice. Briefly, gender awareness indicates that gender is acknowledged, understood, and incorporated as a significant and fundamental health and illness determinant in their routines (Seyfeli et al., 2019; Verdonk, Benschop, & Lagro-Janssen, 2008). Life circumstances, societal positions, societal expectations of' masculinity' and 'femininity, and biological relationships, all are taken into consideration (Risberg et al., 2011).

2.7.1 Importance of Gender Awareness

The lack of awareness regarding gender health issues in medical professionals may cause gender bias in health care and medicine (Risberg et al., 2006; Risberg et al., 2011; Vogt et al., 2008). Building gender awareness and converting values of health care providers through systematic approaches are very important to reduce gender bias in health systems, which will pave the way for better access to high-quality health services, and evolving accountability mechanisms (Risberg et al., 2011). Therefore, health care providers are required to have awareness and knowledge of the issues related to gender and health. (Risberg et al., 2011).

Moreover, health care professionals' gender awareness is considered as a possible domain that affects gender equity in health care. Several studies have discussed that increasing gender awareness among health care professionals may elevate gender equity in health (Morais et al., 2019; Seyfeli et al., 2019). Further, it has been acknowledged that any health system that is not gender-sensitive is not able to

handle the needs of both men and women sufficiently; thus, it is considered an unsatisfactory system. Nonetheless, this resulted in gender-blind medical curricula, where the biomedical perspective is still persistent among health care professionals (Verdonk et al., 2008).

In summary, it is significant to increase the awareness of gender and sex in illness and health. Since it initially plays a significant role in closing the gender gap in health and in improving women's and men's health (Verdonk et al., 2008). Additionally, elevated gender awareness is considered essential for accomplishing genuine connections with patients and contributes to achieving a higher health care quality delivered for both women and men (Doyal, 2003; Verdonk et al., 2008). Moreover, gender awareness is recognized to have an effect on issues, for example, the percentages of women and men in medical specialties of the difference and be consistent about its use culture generally (Verdonk et al., 2008).

2.7.2 International tools

Studies that addressed gender roles in health care were directed at developing scales and measuring gender awareness among medical students and/or doctors (Gattino et al., 2019).

In this respect, multiple measures were developed to operationalize and measure the concept of gender awareness, first by (Miller, King, Wolfe, & King, 1999) and (Verdonk, 2008), (Morais et al., 2019). The developed measures varied in term of the characteristics and what they intend to assess, this mirror the continuing debate regarding the construct of gender awareness, as pointed out in the following literature (Khoury & Weisman, 2002; Miller et al., 1999; Morais et al.,

2019; Verdonk, et al., 2009). The following section attempts to discuss the different measures proposed in the literature.

Up until this point, literature suggested just two validated scales that offer a theoretically based, multidimensional assessment of gender awareness among health care professionals (Morais et al., 2019). These scales are the Gender Awareness Inventory—Veterans Administration (GAI-VA) (Salgado et al., 2002) and the Nijmegen Gender Awareness in Medicine Scale (N-GAMS) (Verdonk et al., 2008).

The GAI-VA scale was created and validated to target the health care professionals treating female veteran patients in the United States of America, in which women form a minority within a context commonly designated by men (Morais et al., 2019). The GAI-VA uses gender sensitivity, gender ideology, and knowledge to measure gender awareness of health care professionals (Verdonk et al., 2008).

The Nijmegen Gender Awareness in Medicine Scale (N-GAMS)

The N-GAMS overcame the GAI-VA limitations through addressing the assessment of medical students' gender awareness towards patients both females and males, in addition to extending it to include gender awareness towards female and male physicians (Morais et al., 2019; Verdonk et al., 2008). Verdonk and colleagues proposed in the initial validation study that the N-GAMS assesses three dimensions of gender awareness: gender sensitivity, gender-role ideology towards patients, and gender-role ideology towards doctors (Verdonk et al., 2008).

Gender sensitivity, that is, the degree to which medical students are sensitive and sympathetic to the impact of gender in medical practice (14 items). Gender-role ideology towards patients that is, medical students' stereotypical views towards

male and female patients (11 items); Gender-role ideology towards doctors /nurses, that is, medical students' stereotypical views towards male and female co-workers (GRIC). (8 items). All subscales showed good reliability (alphas equal and above .80) (Verdonk et al., 2008).

Additionally, findings supported a good criteria-associated validity (patient-centeredness and sex of the student). Further, as hypothesized, male medical students in comparison to female students had a lower gender stereotype against other doctors and patients. Also, patient-centeredness, that is, having more involvement in psychological problems, and owning more attitudes that are open, democratic, and empathic, had a positive association with gender sensitivity between female and male medical students, plus female medical students having a negative association with gender-role ideologies towards patients only (Verdonk et al., 2008).

Although the previous findings recommended that the N-GAMS could be a reasonably good measure of (future) physicians' gender awareness (Morais et al., 2019). (Verdonk et al., 2008) addressed that their N-GAMS require further validation by confirmatory factor analysis, where they used Principal Component Analysis. Even though it is commonly used, some researchers consider it less suitable for scale construction. However, they could not conduct a factor analysis because they had a borderline level subjects-to-items ratio to do a factor analysis, which is favored on a large sample (Verdonk et al., 2008). In light of the previous findings, Morais and colleagues' work, aimed to adapt and validate the N-GAMS to the Portuguese population N-GAMS.pt, along with addressing the limitations in the original N-GAMS. Initially, they tested N-GAMS construct validity. Further, they

extended the measure's criteria-associated validity to include physician empathy, sexism, and years of medical education (Morais et al., 2019). The results demonstrated that the measures' have good criteria-related validity and supporting the ecological validity but as well, to some extent, the cross-cultural stability of the measure (Morais et al., 2019). However, N-GAMS.pt was tested on medical students and physicians only, other health professionals, such as nurses, were not included and tested.

The usage of N-GAMS in the literature

The N-GAMS has been used in the literature, and previous studies to: (1) assess and compare Dutch, and Swedish medical students' gender awareness (Andersson et al., 2012); (2) evaluate the impact of an intervention program regarding female reproduction, clinical practices of gynecology and obstetrics, and other women health-related issues in medical students' levels of gender awareness (Eisenberg et al., 2013), (3) compare differences in General Practitioner trainees gender awareness following different gender medicine programs (Dielissen et al., 2014), (4) To explore the gender awareness of medical students and allied health profession students (Siller et al., 2017), (5) to assess the level of gender awareness among primary health care physicians and doctors-in-training in Italy (Gattino et al., 2019) (6) to determine the level of gender awareness among a sample of Swiss medical students and validate the tool in a French-speaking country (Rrustemi et al., 2020).

These studies highlighted the relevance and applicability of this scale in several contexts, namely, to assess cultural differences in gender awareness and also the efficacy of gender training programs focused on increasing gender awareness

(Morais et al., 2019). As this scale was not previously used to assess nurses' gender awareness, we aimed to incorporate this objective into our study.

Chapter Three: Methodology

3.1 Study design

This study was divided into two main sections, the first section is the contextualization of the N-GAM tool, this was done by forward and backward translation of the tool, consulting a gender expert, conducting a focus group, and piloting the tool. In addition to testing its psychometric properties (reliability and validity). The second section included a cross-sectional exploratory design of gender awareness among primary health care (PHC) general physicians and nurses of all health care providing actors in Ramallah and al-Bireh Governorate. This study invited PHC physicians and nurses to participate by completing an online questionnaire in the summer of 2020.

3.2 Study area and target population

The study was conducted in Ramallah and Al-Bireh Governorate, located in the center of the West Bank, Palestine. This governorate was selected due to time and location limitations and considering the small scale of the study.

The target population (eligible participants) of this study included the PHC general physicians and nurses in Ramallah and al-Bireh Governorate. This population is distributed by the provider into three main categories: Ministry of Health (MoH), Non-Government Organizations (NGOs), and the United Nations Relief and Works Agency (UNRWA). According to the latest MOH primary health care reports, general physicians and nurses are found in 69 Primary health care centers in Ramallah and Al-Bireh Governorate. The MoH manages the majority of these PHC centers in comparison to the UNRWA and NGOs.

3.3 Study sample

The selection of the sample from the target population was based on three primary strata: type of provider (Governmental, UNRWA, NGOs), type of health care worker (physicians, nurses), and gender (men, women) proportionally taking into consideration the total target population.

- **Sample size calculation:**

  To obtain a representative sample of the target population the sample size was calculated as described below:

  The estimated sample size is 150; it is estimated as follows:

  The sample size is calculated using the typical formula:

$$n = \frac{t^2 * s^2}{e^2}$$

  When the total population is small, we can correct the sample size according to the following formula:

$$corrected\ n = \frac{n}{1 + \frac{N}{n}}$$

  Where:

n	**Sample size**
N	**Total target population**
t	**Is the factor that gives the level of confidence 95%, and it is equal to 1.96**
s^2	**The variance of the main estimate in the study (which is supposed to be a proportion (p) and equal to 50% to get the maximum sample size, where P=0.5, 1 –P = 0.5, S^2 = P (1-P) = 0.25**
e	**The margin of error =5% on the total sample size**

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3.4 Data collection

3.4.1 Data collection tool

The questionnaire included three sections: the first section was the participant characteristics-related questions, the second section was the N-GAMS scale, and the third and final section covered other questions related to the previous knowledge and experience on the topic.

- Participant characteristics: included the questions related to the following characteristics: type of center, age, gender, social status, place of residence, type of locality, and place of study.
- The N-GAMS questionnaire: was used to assess the gender awareness levels among health care workers. This scale is divided into three subscales: (1) gender sensitivity (14 items), (2) gender-role ideology towards patients (11 items), and (3) gender-role ideology co-workers (7 items). Answers were assessed on a 5-point Likert scale ranging from 1 ("totally disagree") to 5 ("totally agree"). (The Arabic versions of the questionnaire are found in Annex 1).
- Other questions: this section included the following questions on previous knowledge and experience: if and how many gender differences related workshops or seminars have the health care worker has taken, if they have been exposed to this topic in medical/nursing school, and if and how they apply this topic in the workplace.

3.4.2 Translation of the questionnaire

Since there is no Arabic validated version of N-GAMS, we aimed to produce one by translating it from English. The translation process started with translating (N-

GAMS) to Arabic (forward translation), then back translating it to English (backward translation). In the forward translation, two bilingual independent translators (mother tongue is Arabic) done the initial translation from the original language (English) to the target language (Arabic). One translator was aware of the concepts the questionnaire intends to measure, and the other one was a naïve translator (unaware of the measured concept of the questionnaire). Then, the translations discrepancies were discussed and resolved between the two translators. The next stage (backward translation) was done by two independent translators (mother tongue is English) who were unaware of the questionnaire concept. Then, both backward translation versions were compared for any discrepancies between each other and between the original English version.

Afterward, both (Arabic and English) versions were sent to an expert in gender topic; to confirm that the translated version was equivalent to the original version (Tsang et al., 2017). Finally, recommendations from gender experts and any discrepancies were discussed and applied by the research team.

3.4.3 Focus group

One focus group was held, which included a total of 6 participants. Their occupations varied, including nurses, physicians, and pharmacists. The focus group had two purposes; the first is to confirm that the Arabic version of the questionnaire is understandable and reflects the same ideas as the original version. The second purpose is to explore knowledge on how sex and gender may influence an individual's health. Further, we initially planned to hold a second focus

group exclusive to our target population. But, due to the COVID-19 pandemic, we could not accomplish this target.

3.4.4 Pilot study

After the questionnaire was modified based on the focus group discussion, it was piloted at two stages to increase its face validity. Each participant was face to face interviewed. The interview period was recorded to estimate the required time to fill the questionnaire. Further, participants evaluated the clarity of the instructions and items of the questionnaire (clear or unclear). When the item or the instruction was evaluated as unclear, the participant was asked to suggest how to improve the clarity. The first pilot stage was done on the staff of a health center consisting of one male physician, two female nurses, and one male nurse. The results were used to modify the pre-final version of the questionnaire. The pre-final version was used for the final stage (second pilot), which included piloting the questionnaire on one female nurse and one male physician. Moreover, we asked all participants to give their opinion on the importance of the topic and what result they expect.

3.4.5 Data Collection Technique

Before starting the data collection, we obtained permission from the Ramallah and Al-Bireh Health Directorate to invite the PHC general physicians and nurses to participate in the study.

Initially, the study planned field visits to the PHC centers and face-to-face interviews with the general physicians and nurses to collect the data. However, due to the COVID-19 pandemic, this could not be achieved. Thus, we to switched to an

online alternative to collect the data. The survey was created on Google forms. Then it was piloted on four particiapnts to test the online version of the survey.

The participants were recruited by sending the link of the online survey to WhatsApp groups. There were three different types of these groups: the first two groups include MoH and NGOs PHC physicians and nurses, one group for each health care profession. These two groups were created and managed by Ramallah and Al-Bireh Health Directorate. The questionnaire link was sent to these groups through coordination with administers of the groups. The third type of group included the UNRWA physicians and nurses. We reached out to these groups by contacting members of the groups, who sent the link to the rest of the group.

After ten days, the administrator of the groups sent a reminder to participate in the study and the link were resent. Nurses responded highly to the invitation, but the response from the physicians was low. Thus, ten days after the last reminder, the research team contacted the PHC centers directly through phone calls and invited the physicians to participate. Physicians were either reminded of the link on the WhatsApp groups or the link sent to their personal WhatsApp or email, as requested. Finally, another reminder was done via phone calls to those who did not participate within two weeks.

The data collection process started at the beginning of June and finished in late August 2020.

3.5 Ethical considerations.

The study proposal was submitted and approved by the Research Ethics Committee at the Institute of Community and Public Health - Birzeit University;

before starting the data collection process. Participants voluntarily participated in the study and had the choice to stop or refrain from answering any question. A summary of the study's description and objectives was provided to the participants before obtaining their consent online. All collected data had been kept confidential, and none but the research team had access to it. Further, ID numbers were used instead of names, and the participants had the choice to share the name of the center they work at or not.

3.6 Statistical analysis

The analysis stage began with presenting the descriptive statistics of the participants' characteristics. The continuous variables (age) were presented as Means (M) ± Standard Deviation (SD). While, the categorical variables (gender, social status, place of residence, type of locality, and place of study) were presented in terms of percentages (%). The values of the number of units (n) were stated for all the variables.

Next, the descriptive statistics of the N-GAMS analysis included mean ± standard deviation (M ± SD) for each item on the scale in addition to the scored minimum and the maximum values. Further, all items with negative wording were reversed, then the mean scores of each subscale (GS, GRIP, and GRIC) were determined by computing the average values of each subscale's respective items. Normality of the GS, GRIC, GRIP computed variables, and the continuous variable (age) showed normal distribution; proven by utilizing the Shapiro-Wilk normality test and Q-Q graphs, in addition to the close value of the mean and the terminated mean supporting the normality of the variables.

For the bivariate correlations, an independent t-test was used to test the significance of association between gender awareness measured by N-GAMS subscales (GS, GRIP, GRIC) (dependent variables) and each independent categorical variable (two-category), including sex, previous knowledge/ experience, number of lectures attended, and the workplace variables. Moreover, One-way between-groups analysis of variance (ANOVA) was used to assess the relationship between the dependent variables and the independent categorical variables (three or more categories), including marital status, place of residence, locality, the highest education level, and study country. Further, Pearson correlations assessed the statistical significance between the dependent variables and the continuous independent variables (age) and evaluate the relationship between the N-GAMS subscales (GS, GRIP, GRIC). Multiple regression was conducted to further assess the relationship between the dependent and the independent variables based on the Bivariate analysis. All statistical tests used the level of significance $P<0.05$, and a 95% confidence interval (CI).

The reliability of the subscales was evaluated through Cronbach's alpha (α) and inter-item correlation. For the validity assessment, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) - a measure of sampling adequacy- were used to assess the ability to do Confirmatory factor analysis (CFA). Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 20.0.

Chapter Four: Results

The total study sample consisted of 120 primary health care (PHC) nurses and physicians (women n= 105 (87.5%), men n=15 (12.5%)), (age range: 23 -60, Mean=41.8; SD= 8.61). Nurses made up 90% of the total sample (n=108); the majority were women (97.2% women, 2.8% men), (age range 23-58 years, Mean=44.1; SD= 4.46). Physicians formed only 10% of the total sample (n=12), and they were all men (n=0 women, n=12 men), (age range: 27-60 years, Mean=34.67; SD= 9.33).

Considering the small sample size, sub-analysis by doctor/nurse was not possible. Therefore, the analysis will combine both nurses and doctors.

4.1 Contextualization of the N-GAM tool: psychometric properties (reliability and validity)

Before starting the analysis, the response set for each individual was examined. We looked for participants who had the same response for all statements on the three subscales and excluded them from the analysis; because it may signal a lack of interest or understanding of the questions.

Further, all items with negative wording were reversed. All the items of the gender sensitivity subscale were reversed except items GS-1, GS-2, and GS-13,. Table 1 shows the N-GAMS subscales and reversed items.

Table 1: The N-GAMS scale, also showing scored in reverse items _R

GS,	Gender sensitivity (items scored in reverse_R)
GS_R	addressing differences between men and women creates inequity in health care

GS2	**physicians' knowledge of gender differences in illness and health increases the quality of care**
GS3_R	**physicians should only address biological differences between men and women**
GS4_R	**in non-sex-specific health disorders the sex/gender of the patient is irrelevant**
GS5_R*	**a physician should confine as much as possible to biomedical aspects of health complaints of men and women**
GS6_R	**physicians do not need to know what happens in the lives of men and women to be able to deliver medical care**
GS7_R	**differences between male and female physicians are too small to be relevant**
GS8_R	**especially because men and women are different, physicians should treat everybody the same**
GS9_R*	**physicians who address gender differences are not dealing with the important issues**
GS10_R	**in communicating with patients it does not matter to a physician whether the patients are men or women**
GS11_R	**in communicating with patients it does not matter whether the physician is a man or a woman**
GS12_R	**differences between male and female patients are so small that physicians can hardly take them into account**
GS13	**for effective treatment, physicians should address gender differences in etiology and consequences of disease**
GS14_R	**it is not necessary to consider gender differences in presentation of complaints***
GRIP,	**Gender role ideology towards patients**
GRIP1	**male patients better understand physicians' measures than female patients**

GRIP2	**female patients compared to male patients have unreasonable expectations of physicians**
GRIP3	**women more frequently than men want to discuss problems with physicians that do not belong in the consultation room**
GRIP4	**women expect too much emotional support from physicians**
GRIP5	**male patients are less demanding than female patients**
GRIP6	**women are larger consumers of health care than is actually needed**
GRIP7	**men do not go to a physician for harmless health problems**
GRIP8	**medically unexplained symptoms develop in women because they lament too much about their health**
GRIP9	**female patients complain about their health because they need more attention than male patients**
GRIP10	**it is easier to find causes of health complaints in men because men communicate in a direct way**
GRIP11	**men appeal to health care more often with problems they should have prevented**
GRIC,	**Gender role ideology towards co-workers**
GRIC1	**male physicians/nurses put too much emphasis on technical aspects of medicine compared to female physician/nurse**
GRIC2	**female physicians/nurses extend their consultations too much compared to male physicians/nurses**
GRIC3	**male physicians/nurses are more efficient than female physicians/nurses**
GRIC4	**female physicians/nurses are more empathic than male physicians/nurses**
GRIC5	**female physicians needlessly take into account how a patient experiences disease**
GRIC6	**male physicians/nurses are better able to deal with the work than female physicians/nurses**
GRIC7	**female physicians/nurses are too emotionally involved with their patients**

_R items scored in reverse, i.e. the more you agree, the lower your gender sensitivity score. GS: Gender Sensitivity, GRIP: Gender Role Ideology towards patients, GRIC: Gender Role Ideology towards Co-workers.

4.1.1 Reliability analysis

The reliability – internal consistency- of each subscale with Cronbach's alpha (α) was 0.681 for the GS scale (9 items), 0.658 for the GRIC scale (6 items), and α =0.848 for the GRIP scale (11 items).

4.1.2 Validity analysis

Regarding construct validity of the instrument (N-GAMS), the following hypotheses were assumed and studied to assess the construct validity. In compliance with the previous studies, Verdonk et al. (2008). We expected a positive correlation between the gender role ideology toward co-workers (doctors/nurses) and gender role ideology toward patients (hypothesis 1) and an inverse association with gender sensitivity (hypothesis 2). Implying that agreeing attitudes on the effect of gender in health care practices are associated with lower levels of gender stereotypes. Thus, reinforcing the three domains construct of the N-GAMS.

As shown in Table 2 below, GRIP and GRIC showed a significant strong/ positive correlation (r= 0.680, $p < .001$), which backs up the presence of a common ground for gender ideologies and stereotypes towards nurses, doctors, and patients. However, a very week non-significant negative correlation was found between GS with GRIP (r= 0.680, p < .05) and GS with GRIC respectively (r= 0.680, p < .05).

Thus, findings partially support the hypothesis that the components contribute uniquely to the construct of gender awareness.

Table 2: Pearson product-moment correlations between measures of gender awareness

Sub-scale	1	2	3
1.GS	-		
2.GRI-patient	-0.127	-	
3.GRI-Co-workers	-0.082	0.640**	-

**. Correlation is significant at the 0.01 level (2-tailed).

Further, Bartlett's test of sphericity (Bartlett 1954), and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970, 1974), are two statistical tests used to determine the data's adequacy (factorability) for the factor analysis. Even though the Bartlett test result was found significant (p=0.000), the KMO value 0.673, which is a mediocre value; thus, factor analysis was not possible in this case.

4.2 Findings of the survey

4.2.1 Descriptive analysis

Participants characteristics:

Table 3 summarizes the characteristics of the study participants for the nurses and physicians separately and combined. The majority of the participants were married (n=107, 90.7%), while (n=7, 5.9%) were singles, and an equal percentage of the participants were divorced or widowed (n=2, 1.7%). Further, most participants lived

in Ramallah and al-Bireh governorate (n=112, 95.2%). Minority lived outside Ramallah and al-Bireh, specifically in Jerusalem and Nablus governorates (n=3. 2.6%, n=2, 1.7%) respectively. Additionally, participants lived either in the villages (n=81, 67.5%) or in the city (n=39, 32.5%). Regarding education, the majority of participants had either a bachelor's degree (n=56, 47.9%) or a diploma degree (n=44, 37.6%), while (n=9, 7.7%) had a high diploma degree, and (n=8, 6.8%) had a master degree. The majority of the participants received their healthcare-related education inside Palestine (n=88, 80%), while (n=17, 15.5%) received their education outside Palestine (in Arab countries), and (n=5, 4.5%) outside Palestine (non-Arab countries).

Table 3: Participant's characteristics for nurses and doctors, individually and combined.

Variable/characteristic	Total		Nurses		Doctors	
Age (mean ± standard deviation) years, (n=112)	41.8 ± 8.16		42.7 ± 7.68		31.0 ± 9.33	
	n	%	n	%	n	%
gender, (n=120)						
Male	15	12.5	3	2.8	12	100
Female	105	87.5	105	97.2	0	0
Marital Status, (n=118)						
Single	7	5.9	3	2.8	4	33.3
Married	107	90.7	99	91.7	8	66.7
Divorced	2	1.7	2	1.9	0	0
Widowed	2	1.7	2	1.9	0	0

Place of residence (Governorate), (n=117)						
Ramallah and Al-Bireh	**112**	**95.2**	**103**	**97.2**	**9**	**81.8**
Jerusalem	**3**	**2.6**	**2**	**1.9**	**1**	**9.1**
Nablus	**2**	**1.7**	**9.1**	**0.9**	**1**	**9.1**
Locality, (n=120)						
Village	**81**	**67.5**	**76**	**70.4**	**5**	**41.7**
Camp	**0**	**0**	**0**	**0**	**0**	**0**
City	**39**	**32.5**	**32**	**29.6**	**7**	**58.3**
Highest Education Level, (n=117)						
Diploma	**44**	**37.6**	**33**	**31.4**	**0**	**0**
High Diploma	**9**	**7.7**	**8**	**7.6**	**0**	**0**
Bachelor	**56**	**47.9**	**56**	**53.3**	**11**	**91.7**
Master	**8**	**6.8**	**8**	**7.6**	**1**	**8.3**
Study Country, (n=110)						
Inside Palestine	**88**	**80**	**87**	**84.5**	**1**	**14.3**
Outside Palestine (Arab Country)	**17**	**15.5**	**14**	**13.6**	**3**	**42.9**
Outside Palestine (non-Arab Country)	**5**	**4.5**	**2**	**1.9**	**3**	**42.9**

Statistics of the N-GAMS Scale (gender awareness levels)

Table 4 shows the mean for each item on the scale, standard deviation, minimum and maximum values. The GS scale item's mean values ranged from 2.41 to 3.57, the GRIP item's mean ranged from 2.25 to 3.60, while the GRIC item's mean values ranged between 2.03 to 3.25. Moreover, answers covered the range (min =1, max=5) for the majority of the items on the three subscales.

Table 4: Descriptive statistics for N-GAMS scale items.

Item	M	SD	min	max
GS1	2.73	1.071	1	5
GS2	3.45	1.095	1	5
GS3_R	3.31	1.095	1	5
GS4_R	3.47	0.99	1	5
GS5_R	3.57	0.935	1	5
GS6_R	3.54	0.937	2	5
GS7_R	3.13	1.005	1	5
GS8_R	2.41	1.003	1	5
GS9_R	3.38	0.813	2	5
GS10_R	2.61	1.201	1	5
GS11_R	3.22	1.114	1	5
GS12_R	3.23	0.961	1	5
GS13	3.49	0.947	1	5
GS14_R	3.27	0.972	1	5
GRIP1	2.25	0.846	1	4
GRIP2	2.57	0.953	1	5
GRIP3	3.17	1.011	1	5
GRIP4	3.26	1.004	1	5
GRIP5	3.00	1.097	1	5
GRIP6	3.26	1.116	1	5
GRIP7	3.36	0.954	1	5
GRIP8	3.30	1.021	1	5
GRIP9	3.60	0.994	2	5
GRIP10	3.16	0.965	1	5
GRIP11	3.37	0.919	2	5
GRIC1	2.51	0.91	1	5
GRIC2	3.25	0.993	1	5
GRIC3	2.03	1.033	1	5
GRIC4	3.34	1.1	1	5
GRIC5	3.34	0.906	2	5

GRIC6	2.59	1.123	1	5
GRIC7	3.16	1.017	1	5

_R items scored in reverse, i.e. the more you agree, the lower your gender sensitivity score.
GS: Gender Sensitivity, GRIP: Gender Role Ideology towards patients, GRIC: Gender Role Ideology towards Co-workers.

Further, the total mean scores of each subscale (GS, GRIP, and GRIC) were determined by computing the average values of each subscale's respective items. Participants, on average, showed low to moderate levels of gender sensitivity (M=2.84, SD=0.486). On the other hand, for the gender role ideology toward patients, participants, on average, revealed moderate gender stereotypes towards patients (M=3.11, SD=0.624). Lastly, participants, on average, had low to moderate adherence to gender stereotypes (gender role ideologies towards coworkers (nurses/ doctors)) (M=2.72, SD=0.660).

Variables related to participants previous knowledge and experience

Other variables addressed nurses' and doctors' previous knowledge and experience related to the gender concept in health care and gender awareness. These are exposure to the topic in nursing or medical schools, attendance to related workshops/seminars/lectures, and the application of gender differences in healthcare in the workplace.

Regarding the previous exposure to the topic in nursing or medical schools, the majority (n=68, 79%) stated that they had not learned about gender differences in health care in nursing/medical schools. In contrast, only (n=18, 21%) answered they had.

Moreover, a limited number of the participants specified what they have learned in school regarding gender concepts in healthcare. A couple of answers indicated the presence of some extent of knowledge on the gender topic:

"Gender must be taken into account when dealing with patients and the development of disease symptoms". "We, our society, educate our children on gender since childhood, such as differences in clothing, games, behaviors, and responsibilities"*. However, the other answers did not reflect a clear knowledge on the topic: *"The feeling a person himself feels".

Further, only (n=29, 28.2%) participants reported that they had at least attended one or more workshops/seminars/lectures related to gender concept in healthcare, and (n=74, 71.8%) reported that they had not attended any. Several participants specified what they had learned in these lectures. Some answers reflected an acceptable understanding of the topic, examples of these answers are:

"Considering the differences between the male and female in medical treatments and diseases that affect one gender more than the other ", "About gender awareness and the way and techniques to deal with patients whether they were females or males and how to communicate with patients", "Gender roles and gender-based violence".

Other answers were random and did not reflect a clear idea or pointed out general concepts without explaining the details, for example: "*Many courses about gender*", "*Basics and concepts*", "*I don't remember*".

Finally, when participants were asked if they apply the gender differences in healthcare in the workplace, there was almost symmetry in the answers (n=40,

47%) said no, and (n=45, 53%) said yes. Some mentioned how they consider and apply the concept, for example, *"Through communicating with the patients and collecting enough information about them", "Through a deep study of all the social conditions surrounding an individual*". Other answers focused on health education *"We give health education for both genders, brochure and report to the ministry".* Some answers focused on the psychological aspect "*Taking into account the patient's psychological condition and privacy",* and finally some participants mentioned considering each participant as a unique case "*Each patient is treated according to their condition ".*

4.2.2 Binary analysis

Bivariate correlations were conducted between the final subscales and between these scales and the other independent variables. The following table summarizes the association between the dependant and independent variables.

<u>Relationship between N-GAMS subscales and the independent categorical variables (two categories)</u>

Comparing gender awareness subscales and each independent categorical variable (two categories) including gender, previous knowledge/ experience, number of lectures attended, and the workplace variables. Levene's test for equality of variances showed equal variances (homogeneous). Thus, an independent t-test with a 95% confidence interval (CI) showed only significant differences in the mean GRIP and GRIC scores for males and females. GRIP in the female group (M=3.06± SD=.599) were significantly lower than the male group (M=3.55± SD=.645) (t(117) = 2.967, p= 0.004, two-tailed) with a mean difference of 0.495 (95% CI, 0.165 to 0.83). GRIC in the female group (M=2.81± SD=0.49) were significantly lower than

the male group =(3.01± SD=0.4340) (t(117) = 5.96, p= 0.000, two-tailed) with a mean difference of 0.95620 (95% CI, .52 to 1.39). Yet, there were no statistically significant differences between mean GS scores between males and females.

Also, their were no statistically significant differences between the three subscales (GS, GRIP, GRIC) and the knowledge/ experience, the number of lectures attended, and the workplace variables, as shown in table 5.

Relationship between N-GAMS subscales and the independent categorical variables (three or more categories)

Assessing the relationship between the independent categorical variables (three or more categories) including marital status, place of residence, locality, highest education level, and study country, and gender awareness as measured by GS, GRIP, GRIC subscales by one-way between-groups analysis of variance (ANOVA), showed no statistically significant differences in the mean score of the gender awareness subscales among the different groups of the independent variables.

Table 2: Bivariant analysis for the dependent variable N-GAMS subscales (GS, GRIP, GRIC) and the independent categorical variables.

Independent variable		GS		GRIP		GRIC	
Variable	Catogeries	Mean	P-value	Mean	P-value	Mean	P-value
Gender	Male	3.01	0.131	3.55	<0.05.	3.56	<0.001.
	Female	2.81		3.06		2.6	
Marital Status	Single	3.1	0.393	3.07	0.829	3.41	0.132
	Married	2.83		3.55		2.68	
	Divorced	2.7		3.27		2.58	
	Widowered	2.8		3.12		2.83	
Place of residances	Ramallah and Al-	2.83	0.664	3.13	0.836	2.71	0.448

(Governorate)	Bireh						
	Jerusalem	3.07		3.15		3.17	
	Nablus	2.95		2.86		2.5	
Independent variable		GS		GRIP		GRIC	
Variable	Catogeries	Mean	P-value	Mean	P-value	Mean	P-value
Locality	Vialge	2.79	0.161	3.12	0.892	2.75	0.509
	City	2.93		3.11		2.66	
Highest Education Level	Diploma	2.86	0.949	3.31	0.052	2.94	0.063
	High Diploma	2.86		3.02		2.71	
	Bachelor	2.85		3.04		2.54	
	Master	2.75		2.75		2.79	
Study Country	Inside Palestine	2.84	0.393	2.64	0.829	3.1	0.123
	Outside Palestine (Arab Country)	2.91		2.75		3.01	
	Outside Palestine (non-Arab Country)	2.56		3.2		3.02	
Previous knowledge	No	2.88	0.731	3.09	0.426	2.69	0.681
	Yes	2.83		3.22		2.61	
Attendance of workshops and lecturers	0	2.86	0.863	3.19	0.39	2.69	0.59
	1 or more	2.84		3.07		2.78	
Application in workpalce	No	2.83	0.998	3.06	0.478	2.54	0.07
	Yes	2.83		3.16		2.81	

GS: Gender Sensitivity, GRIP: Gender Role Ideology towards patients, GRIC: Gender Role Ideology towards Co-workers.

Relationship between N-GAMS and the independent continuous variables

Finally, Pearson correlation was used to assess the association between the gender awareness subscales and independent continuous variable (age). Results showed a negative medium-strength significant association between the GRIP subscale and the age (r=-0.288, p<0.001). However, GS and GRIC showed no significant association with age (r=-170, >0.05), (r=-0.011, p>0.05) respectively.

4.2.3 Multivariate analysis

For the multivariate analysis, standard multiple regression was done. Only variables with significant associations from the binary analysis were entered into the model.

GRIP:

Multiple regression was run to predict the levels of GRIP from gender and age. Initial analyses showed the assumptions of normality, linearity, homoscedasticity, and multicollinearity were not violated. The prediction model was statistically significant, F(2, 105) = 7.31, p=0.001, and responsible for around 12.2% of the variance of GRIP (R^2= 0.122, Adjusted R^2= 0.106). The two added variables were statistically significant to the prediction, p< .05. Both variables made a similar unique contribution, gender (*beta* = -.214, p < .05), and age made a statistically significant contribution (beta = –.207, p < .05)

GRIC

Multiple regression was run to predict the levels of GRIC from gender and age. Initial analyses showed the assumptions of normality, linearity, homoscedasticity,

and multicollinearity were not violated. The prediction model was statistically significant, F(2, 105) = 18.45, p<0.001, and responsible for around 26% of the variance of GRIC (R^2= 0.26, Adjusted R^2= 0.246). However, only gender were statistically significantly to the prediction gender (*beta* = -.506, *p* < .001), while age (beta = –.011, , *p* >.05).

Chapter Five: Discussion

5.1 Sample discussion

The nurse's men: women ratio in our sample (97.2% women, 2.8% men) was consistent with the ratio of the target population (96% women, 4%men), based on unpublished data provided by MoH. By contrast, physician's men-women ratio did not reflect the target population ratio; no female PHC physicians have participated in our study, compared to 41% female and 59% male physicians found in the target population.

On the other hand, participants reflected the distribution of physicians and nurses in PHC centres in Ramallah and al-Bireh in terms of the type of the centre. 79.2% of the total participants were from MoH centres, 13.3% were from UNRWA, 6.7% were from NGOs + MoH, and finally 0.8% from NGOs. Thus, we could not reach our physician's target sample size, reflecting the low response rate (12%) from the physicians, especially the females.

In this respect, research has shown that it might be challenging to conduct surveys of health care professionals. Unfortunately, low response rates are prevalent among health care practitioners in general and physicians in particular (Cho et al., 2013; Cunningham et al., 2015).

This pattern was also observed in the Palestinian context, for example: (Elsous, Radwan, & Mohsen, 2017) surveyed physicians and nurses in two of the major hospitals in the Gaza Strip, where they had a high response rate from the nurses (75.6%) versus a lower (24.4%) response rate for the physicians. The response rate varied drastically between male and female physicians; 96% were males, and only 4% were females.

Our study was no exception, physicians had a very low response rate, especially the female physicians, while nurses had a very high response rate. Therefore, we attempted to stimulate a response from them by implanting different techniques. Initially, the invitation was sent through official MoH representatives and their official channels (What's App groups), research found higher response when official parties were involved. Further, mixed modes follow-ups were suggested (Cho et al., 2013). Thus, were reminders sent through the official channels, telephones follow-up were done twice, and the link was resent to the preferred platform personal What's App or e-mail. However, during the phone calls, we captured two reactions from the physicians some of them we welcoming and willing to participate in the study, others said that will do but did not show any positive attitude

Some possible factors could explain why physicians had a low response rate. Possibly, participants did not find interest in our research topic or found it irrelevant and insignificant. Additionally, it's likely that physicians had a busier schedule and thus had less free time to fill the survey. Therefore, we addressed this issue by keeping the link accessible for long period with easy access (available on personal cell phones).

Ultimately, we could not eliminate the nonresponse bias, this study lacked the participation of physicians especially females, which impacted the generalizability of the result and its applicability.

5.2 Contextualization of the N-GAM tool: Reliability and validity of the Arabic N-GAMS

The reliability – internal consistency- of each subscale with Cronbach's alpha (α) was 0.681 for the GS scale (9 items), 0.658 for the GRIC scale (6 items), and α =0.848 for the GRIP scale (11 items). However, alpha (α) has no ideal values. Some researchers consider values of 0.7 and higher as ideal.

However, Cronbach's alpha value is dependent on the number of items in each subscale (Souza et al., 2017). For short scales (less than ten items per subscale/domain), Cronbach's alpha usually will have a lower value impacting the internal consistency. In this scenario, reporting the items' mean inter-item correlation might be more fitting. According to Briggs and Cheek (1986), 0.2 – 0.4 is an adequate range for inter-item correlation (Souza et al., 2017). Items with item-total correlation lower than 0.3 were removed. Thus, the mean inter-item correlation for the GS scale was 0.21, while it was 0.33 for the GRID scale, and 0.25 for the GRIP scale, reflecting an acceptable inter-item correlation.

Regarding the excluded items, the gender sensitivity subscale required the most modifications, a total of 5 items were excluded due to low item-total correlation (less than 0.3). The GRIC subscale had only one item exclusion, while the GRIP subscale included all the original items. The exclusion of a high number of items from the subscale was observed in the previous research including (Verdonk et al., 2012; Morais et al., 2020). This could be attributed to the extraction methods used in the N-GAMS construction study (Verdonk et al. 2008), where they used principal

component analysis, which is a less appropriate method for scale construction (Verdonk et al., 2008; Morais et al., 2020).

Further, even though the three domains construct of the N-GAMS is partially supported by confirming hypothesis 1 (there is a positive correlation between the gender role ideology toward co-workers (doctors/nurses) and gender role ideology toward patients), the primary and more common test used to assess and investigate the structural construct validity is factor analysis. Research highly suggests using confirmatory factor analysis (CFA) as an appropriate technique to validate instruments/scales by confirming the instrument's construct (Morais et al., 2020).

In this respect, factor analysis has specific requirements to be met to have more reliable outcomes. First, it is stressed that an adequate sample should be present. Results based on small samples are not reliable. In particular, the sample size, according to (Seyfeli et al., 2019), should be at least five to ten times the number of items on the scale. In our case, we have a total of 26 items; thus, our sample size should at least range from 130-260.

5.3 Findings of the survey

The N-GAMS scale scores

Measuring gender awareness and the associated stereotypes and attitudes by using a quantitative scale have advantages and disadvantages. Regarding the advantages, employing such a tool will provide the capacity to conduct research and evaluations on the gender awareness topic, while including higher individuals

from the target population at once, and be cost and time-efficient (Verdonk et al., 2012).

On the other hand, since N-GAMS only measures the attitudinal component of gender awareness, a comprehensive understanding of the health professionals' gender awareness is required. Future studies should assess health care worker knowledge on how sex and gender may influence an individual's health and healthcare, along with the skills required to incorporate such knowledge in clinical practice (Morais et al., 2020). Hence, further qualitative research is needed to provide a more in-depth analysis of health care workers' underlying logic social discourses (Verdonk et al., 2012).

Gender sensitivity score

Participants held neutral opinions on the GS subscale statements. In this respect, even though health care workers observe daily disparities between the men and women in everyday actions and tasks, their views, expectations, assumptions, and values are also influenced by societal conditions and their behavior (Verdonk et al., 2012). This contradiction might have affected their final scores. However, more qualitative research needs to be done to fully understand the result.

Interestingly, almost half (53%) of the participants mentioned that they apply the gender differences in healthcare in the workplace considerations, while 47% stated they do not. This indicates that participants see themselves as gender-sensitive, but the overall score on this score was neutral, thus how this could be understood? Does it mean that the average of scores was neutral? Or did they contradict

themselves? Or they do not understand how to appropriately consider these differences?

Gender role ideologies scores

Further, GS subscale statements reflect the significance of gender disparities in biology and communication related to clinical practice. But, the GRIP and GRIC subscales statements are explicit and evaluative regarding the women and male physicians and doctors, for instance, statements expressed that one gender for patients or physicians is characterized as "too much", "less" or "better" than the opposing gender. Therefore, when the health care workers agree with statements, it reflects believing and accepting in gender differences and the hierarchy in these differences - One gender's characteristics are considered better and more favorable than those of the opposite gender- (Verdonk et al., 2012).

The statements correspond to the societal gender stereotypes and generalizations, males are labeled as more effective, skilled, and trustworthy than women who are portrayed as more emotional, concerned, and requires attention and time to communicate (Verdonk et al., 2012).

Moreover, The health care workers' expressed lower /less evident gender stereotypes towards co-workers in compersion to the stereotypes held towards patients. It has been documented that an individual's self-reported traits are generally less gender-stereotypical than their assessments of "typical person's" (Verdonk et al., 2012). This indicates the presence of in-group favoritism bias, which functions to benefit self positive social identity (Morais et al., 2020).

As discussed in the first chapter, the interaction between gender and health is a multidimensional and complex process. The equality legislation and policies and social norms are examples of the factors that affect this process. Countries with extensive gender equality laws and legislations, along with equal/better sharing/allocation of chores and responsibilities between genders, might affect the gender awareness levels (Verdonk et al., 2012). For example, the gender awareness levels were different between the Swedish and the Dutch medical students, even though both countries are welfare states, Netherlands has less extensive legislations compared to Sweden. Further, Dutch women are responsible for the household chores and children care, the majority of them work part-time jobs, whilst the majority of the Dutch men are the main providers as full-time employees. On the other hand, men and women in Sweden are full-time employees, while day-care centers look for their kids (Verdonk et al., 2012). The authors argued that these variations in women's social position can explain variances in gender awareness between nations (Verdonk et al., 2012).

Relationship between the N-GAMS subscales (GS, GRIP, and GRIC)

Consistent with previous studies (Morais et al ., 2020; Verdonk et al., 2008), there is no significant association between gender sensitivity and gender role ideology domains. Suggesting that primary health care workers could sympathize with the women and male patient's particular needs, while still agreeing with unfavorable gender stereotypes (Verdonk et al., 2008). Further, this also indicates that the two domains of the gender awareness concept are distinct sub-dimensions of the of gender awareness that will need to be addressed separately in future interventions (Morais et al., 2020).

The relationship between gender awareness and age and gender variables

Age and gender were the only variables that were significantly associated with some subscales of the N-GAMS, the other background variables could not statistically help to understand the gender awareness levels.

Gender

Gender sensitivity was not significantly different between men and women participants, which was found in other studies (Siller et al., 2018 and Verdonk et al., 2008). On the other hand, women had significantly lower stereotypes towards both patients and co-workers.

Other studies that used the N-GAMS, also reported women having/scoring lower stereotypes than men toward patients and co-workers including Swiss medical students (Rrustemi et al., 2020), Sweden and Dutch medical students (Verdonk et al., 2012), Portuguese medical students (Morais et al., 2020) and medical students and allied health professions (Siller et al., 2018) and a sample of Italian primary care physicians and doctors-in-training (Gattino et al., 2020).

We should note here that we are aware of comparing our results with studies that used the NGAMS tool but with different target populations, but we had to due to the limited studies done on similar groups like ours.

Men and women differ in terms of the outspokenness of gender role ideologies (Verdonk et al., 2008). In our results,women clearly expressed their disagreement with gender stereotypes counter to men who had more neutral answers. This could be attributed to the fact that these stereotypes are usually related to women position and their need to have the appropriate health care (Rrustemi et al., 2020).

Likewise, men lack interest and curiosity will result in a lack of motivation to address their gendered values, beliefs, and attitudes, thus making them more susceptible to stereotypes and assumptions associated with women's and men's desires, needs, actions, and behaviors (Verdonk et al., 2012). Further, males may be more welcoming to accept gender stereotypes because it tends to be more positive about males, which applies to GRIP subscale statements (Verdonk et al., 2012).

Age

Moreover, older health care workers had a better gender awareness, specifically on the gender role ideologies stereotypes domain, which was also reported in previous studies (Morais et al., 2020). Older generally means a longer complex and extensive clinical experience, and this exposure might lead to expressing positive attitudes (Morais et al., 2020). Further studies are required on this topic.

Other variables

Other variables related to the previous knowledge and experience on the gender concept in health care and gender awareness include; exposure to the topic in nursing or medical schools, attendance to related workshops/seminars/lectures, and the application of the gender differences in healthcare in the workplace. The majority of participants (79%) stated that they had not learned about gender differences in health care in nursing/medical schools. In contrast, only 21% stated they had, which may indicate the lack of incorporation of the concept in the health care curriculum and health care educational system. Only 28.2% of participants reported that they had at least attended one or more workshops/seminars/lectures related to gender concepts in healthcare. Based on these figures the majority of

participants stated they did not have the knowledge or previous exposure. However, more than half (53%) of the participants said they apply the gender differences in healthcare in the workplace considerations. A small number of the particpents specified how they consider and apply the concept; answers mentioned the communication, health education, and psychological aspects related to gender. Even though there was no significant association between the health care worker's previous knowledge and experience related to the gender concept in health care and gender awareness. Previous studies claimed that as students learn more and grow more comfortable addressing gender, they become more positive and engaged (Verdonk et al., 2012). Thus, more qualitative research is required, several factors need to be understood to have a better and complete understanding of the situation in Palestine, for example, frequency of the lectures, quality of materials, and health care worker acceptability and wellness to learn. Nevertheless, the open-ended question gave the impression that the majority of participants did not have the full knowledge and skills to apply it.

Limitations

This study had the following limitations: first of all, the results and its applicability were impacted by the small sample size and nonresponse bias. Physicians had a very low response rate of 12% and no response from females 0%. Further, psychometric qualities of the Arabic N-GAMS need further testing on larger sample size, as we could not meet the requirements for the CFA. Finally, even though this instrument focused on the attitudinal components of gender awareness, qualitative research is needed to understand the other aspect of gender awareness.

Conclusion

Gender awareness among primary health care general physicians and nurses has not been studied extensively globally and in Palestine. This study attempted for the first time to contextualize an international tool (N-GAMS) measuring the gender awareness concept in the Palestinian concept. However, a larger sample size is required to confirm the psychometric qualities of the instrument along with qualitative research to understand the other aspect of gender awareness.

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Annex 1: Arabic versions of the survey

استبيان الوعي الجندري

مقدمة: هاي الدراسة جزء من مشروع يشرف عليه معهد الصحة العامة والمجتمعية في جامعه بيرزيت، حابين في هاي الدراسة نحدد مستوى الوعي الجندري عند أطباء وممرضين عيادات الصحة الأولية في محافظة رام والله والبيرة. هذا مهم لأن مستوى الوعي الجندري مرتبط بالنتائج الصحية

- **حابين إنك تشارك/ي معنا بهاي الدراسة عن طريق الإجابة عن الأسئلة التي راح تنعرض لاحقا**
- **سيتم الحفاظ على سرية المعلومات، احنا بحاجة فقط لاسم العيادة للمتابعة عشان متابعة الاستمارات، ومش راح نستخدمه في عرض النتائج**
- **لديك/ي الحرية بعدم المشاركة بالدراسة**
- **لديك/ي الحرية بعدم الإجابة على أي سؤال لا تريد/ين الإجابة عليه**
- **لديك/ي الحرية الانسحاب من الدراسة باي وقت**
- **بنحب بنأكد أنو كل الأجوبة صحيحة وما في جواب صح أو غلط**

موافق: نعم---------- لا----------

اسم العيادة:----------

- **الجنس**
  - **ذكر**
  - **أنثى**
  -
- **العمر بالسنوات**

ID Number:……

القسم الأول: المعلومات الاجتماعية والديموغرافية والأسئلة الأخرى ذات الصلة	
الرجاء اكمال الأسئلة التالية	
.الجنس **ذكر** **أنثى** **لاأريد الإجابة على هذا السؤال**	
العمر بالسنوات.....……	
الحالة الاجتماعية **أعزب / عزباء** **متزوج/ة** **مطلق/ة** **أرمل/ة** **لا أريد الإجابة على هذا السؤال**	
مكان السكن (المحافظة).....……	
نوع التجمع السكاني الخاص بمكان إقامتك **مدينة** **مقرية** **مخيم**	
أعلى مستوى تعليمي حصلت عليه	
مكان الدراسة	

For Nurses:

نهاية القسم الأول						
القسم الثاني: الحساسية الجندرية						
ترتبط العبارات التالية بأفكار حول النوع الاجتماعي (الجندر) في التمريض. أشر إلى الرقم الذي يصف بشكل أفضل مدى توافق كل عبارة من العبارات التالية مع توقعاتك						
	هل تعتقد/ين أن	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
B1	أن التناول أوالنظرأو أوالاهتمام في الاختلافات بين الرجال والنساء تخلق عدم مساواة في الرعاية الصحية	1	2	3	4	5
B2	معرفة الممرضين/ات بفروق النوع الاجتماعي (الفروق الجندرية) المرتبطة بالمرض والصحة تزيد من جودة الرعاية	1	2	3	4	5
B3	يجب على الممرضين/ات التناول أوالنظر فقط في الاختلافات البيولوجية بين الرجال والنساء	1	2	3	4	5
B4	في الأمراض الصحية غير المرتبطة بالجنس (التي لاترتبط بأمراض الجهاز التناسلي)، إن جنس/النوع الاجتماعي (الجندر) للمريض لا يعد ذو صلة	1	2	3	4	5
B5	يجب أن يقتصر الممرض/ة قدر الإمكان على الجوانب الطبية للشكاوى/أعراض الصحية للرجال والنساء	1	2	3	4	5
B6	لا يحتاج الممرضين/ات إلى معرفة ما يحدث في حياة الرجال والنساء الشخصية أو الخاصة حتى يتمكنوا من تقديم الرعاية الطبية	1	2	3	4	5
B7	الاختلافات بين الممرضين الذكور والإناث صغيرة للغاية بالتالي لا تعد ذات صلة	1	2	3	4	5
B8	بسبب اختلاف الرجال والنساء، يجب أن يعامل الممرضين/ات الجميع بشكل متساوي	1	2	3	4	5
B9	لا يتعامل الممرضين/ات الذين ينظرون في اختلافات النوع الاجتماعي (الاختلافات الجندرية) مع المشاكل الهامة	1	2	3	4	5

B10	عند التواصل مع المرضى، لا يهم الممرض/ة ما إذا كان المرضى رجالًا أم نساء	1	2	3	4	5
B11	عند التواصل مع المرضى، لا يهم المرضى ما إذا كان الممرض رجلًا أو امرأة	1	2	3	4	5
B12	الاختلافات بين المرضى الذكور والإناث صغيرة للغاية بالتالي يصعب على الممرضين/ات أخذها بعين الاعتبار	1	2	3	4	5
B13	للحصول على علاج فعال، ينبغي على الممرضين/ات التناول/النظر في اختلافات النوع الاجتماعي (الاختلافات الجندرية) في مسببات المرض وعواقبه	1	2	3	4	5
B14	ليس من الضروري أن يُنظر في اختلافات النوع الاجتماعي (الاختلافات الجندرية) في عرض الشكاوى	1	2	3	4	5

نهاية القسم الثاني

القسم الثالث:أيدولوجية أدوار النوع الاجتماعي نحو المرضى

ترتبط العبارات التالية بأفكار حول المرضى الذكور والإناث. أشر إلى الرقم الذي يصف بشكل أفضل مدى توافق كل عبارة من العبارات التالية مع توقعاتك

	هل تعتقد/ين أن	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
C1	يفهم المرضى الذكور أسلوب الممرضين/ات بشكل أفضل من المرضى الإناث	1	2	3	4	5
C2	المرضى الإناث لديهم توقعات غير معقولة من الممرضين/ات مقارنة بالمرضى الذكور	1	2	3	4	5
C3	النساء يُردن أكثر من الرجال المناقشة مع الممرضين/ات بمشاكل لا تنتمي إلى خارج نطاق /موضوع الاستشارة الطبية	1	2	3	4	5
C4	النساء يتوقعن الكثير من الدعم العاطفي من الممرضين/ات	1	2	3	4	5
C5	المرضى الذكور أقل تطلبا من المرضى الإناث	1	2	3	4	5
C6	النساء يستهلكن الرعاية الصحية أكثر من الحاجة	1	2	3	4	5
C7	الرجال لا يتوجهون إلى الطبيب بسبب مشاكل صحية غير	1	2	3	4	5

	مؤذية					
C8	الأعراض الغير المبررة طبيا تتطور لدى النساء لأنهن يندبن كثيرا (يشتكين أكثر من اللازم) على صحتهن	1	2	3	4	5
C9	المرضى الإناث يشتكين من صحتهن لأنهن بحاجة إلى مزيد من الاهتمام مقارنة بالمرضى الذكور	1	2	3	4	5
C10	من السهل العثور على أسباب الشكاوى الصحية لدى الرجال لأن الرجال يتواصلون بطريقة مباشرة	1	2	3	4	5
C11	الرجال يلجؤون غالبا إلى الرعاية الصحية بسبب مشاكل كان ينبغي عليهم منعها (كان بإمكانهم معالجتها مبكرا أو الوقاية منها)	1	2	3	4	5

نهاية القسم الثالث

القسم الرابع:أيدولوجية أدوار النوع الاجتماعي نحو الأطباء

ترتبط العبارات التالية بأفكار حول الممرضين الذكور والإناث. أشر إلى الرقم الذي يصف بشكل أفضل مدى توافق كل عبارة من العبارات التالية مع توقعاتك

	هل تعتقد/ين أن	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
D1	الممرضين الذكور يضعون الكثير من التركيز على الجوانب التقنية للطب بالمقارنة مع الممرضات الإناث	1	2	3	4	5
D2	تُطيل الممرضات الإناث الاستشارات الخاصة بهن بشكل أكبر مقارنة الممرضين الذكور	1	2	3	4	5
D3	الممرضين الذكور أكثر فعالية/كفاءة من الممرضات الإناث	1	2	3	4	5
D4	الممرضات الإناث أكثر تعاطفا من الممرضين الذكور	1	2	3	4	5
D5	الممرضات الإناث يأخذن في الاعتبار أكثر من اللازم/حاجة تجربة المريض مع المرض	1	2	3	4	5
D6	الممرضين الذكور أكثر قدرة على مواجهة العمل من الممرضات الإناث	1	2	3	4	5
D7	الممرضات الإناث منخرطات عاطفيًا بشكل كبير مع مرضاهن	1	2	3	4	5

نهاية القسم الرابع
القسم الخامس:

	في كلية التمريض، هل تعلمت عن اختلافات النوع الاجتماعي (الاختلافات الجندرية) في التمريض؟إذا نعم كيف؟ **.....**
	كم عدد ورشات العمل أو الحلقات الدراسية المتعلقة بالفروق بين الجنسين التي تم حضورها؟ إذا نعم ماذا تعلمت؟ **.....**
	في مكان عملك، هل تطبق قضايا النوع الاجتماعي؟ إذا نعم كيف؟ **.....**
نهاية الاستبيان	

ID Number:……

For Doctor :

نهاية القسم الأول						
القسم الثاني: الحساسية الجندرية						
حول النوع الاجتماعي (الجندر) في الطب. أشر إلى الرقم الذي يصف بشكل أفضل مدى توافق كل Aترتبط العبارات التالية بأفكار عبارة من العبارات التالية مع توقعاتك						
	هل تعتقد/ين أن	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
B1	أن التناول أوالنظرأو أوالاهتمام في الاختلافات بين الرجال والنساء تخلق عدم مساواة في الرعاية الصحية	1	2	3	4	5
B2	معرفة الأطباء/الطبيبات بفروق النوع الاجتماعي (الفروق الجندرية) في المرض والصحة تزيد من جودة الرعاية	1	2	3	4	5
B3	يجب على الأطباء/الطبيبات التناول أو النظر فقط في الاختلافات البيولوجية بين الرجال والنساء	1	2	3	4	5
B4	في الأمراض الصحية غير المرتبطة بالجنس (التي لاترتبط بأمراض الجهاز التناسلي)، فإن جنس/النوع الاجتماعي (الجندر) للمريض لا يعد ذو صلة	1	2	3	4	5
B5	يجب أن يقتصر الطبيب/ة قدر الإمكان على الجوانب الطبية للشكاوى/أعراض الصحية للرجال والنساء	1	2	3	4	5
B6	لا يحتاج الأطباء/الطبيبات إلى معرفة ما يحدث في حياة الرجال والنساء الشخصية أو الخاصة حتى يتمكنوا من تقديم الرعاية الطبية	1	2	3	4	5
B7	الاختلافات بين الأطباء الذكور والإناث صغيرة للغاية بالتالي لا تعد ذات صلة	1	2	3	4	5
B8	بسبب اختلاف الرجال والنساء، يجب أن يعامل الأطباء/الطبيبات الجميع بشكل متساوي	1	2	3	4	5

B9	لا يتعامل الأطباء/الطبيبات الذين ينظرون في اختلافات النوع الاجتماعي (الاختلافات الجندرية) مع المشاكل الهامة	1	2	3	4	5
B10	عند التواصل مع المرضى، لا يهم الطبيب/ة ما إذا كان المرضى رجالًا أم نساء	1	2	3	4	5
B11	عند التواصل مع المرضى، لا يهم المرضى ما إذا كان الطبيب/ة رجلًا أو امرأة	1	2	3	4	5
B12	الاختلافات بين المرضى الذكور والإناث صغيرة للغاية بالتالي يصعب على الأطباء/الطبيبات أخذها بعين الاعتبار	1	2	3	4	5
B13	للحصول على علاج فعال، ينبغي على الأطباء/الطبيبات تناول/النظر في اختلافات النوع الاجتماعي (الاختلافات الجندرية) في مسببات المرض وعواقبه	1	2	3	4	5
B14	ليس من الضروري أن يُنظر في اختلافات النوع الاجتماعي (الاختلافات الجندرية) في عرض الشكاوى	1	2	3	4	5

نهاية القسم الثاني

القسم الثالث:أيدولوجية أدوار النوع الاجتماعي نحو المرضى

ترتبط العبارات التالية بأفكار حول المرضى الذكور والإناث. أشر إلى الرقم الذي يصف بشكل أفضل مدى توافق كل عبارة من العبارات التالية مع توقعاتك

	هل تعتقد/ين أن	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
C1	يفهم المرضى الذكور أسلوب الأطباء/الطبيبات بشكل أفضل من المرضى الإناث	1	2	3	4	5
C2	المرضى الإناث لديهم توقعات غير معقولة من الأطباء/الطبيبات مقارنة بالمرضى الذكور	1	2	3	4	5
C3	النساء يُردن أكثر من الرجال المناقشة مع الأطباء/الطبيبات بمشاكل لا تنتمي إلى خارج نطاق /موضوع الاستشارة الطبية	1	2	3	4	5
C4	النساء يتوقعن الكثير من الدعم العاطفي من الأطباء/الطبيبات	1	2	3	4	5
C5	المرضى الذكور أقل تطلبا من المرضى الإناث	1	2	3	4	5

C6	النساء يستهلكن الرعاية الصحية أكثر من الحاجة	1	2	3	4	5
C7	الرجال لا يتوجهون إلى الطبيب بسبب مشاكل صحية غير مؤذية	1	2	3	4	5
C8	الأعراض الغير المبررة طبيا تتطور لدى النساء لأنهن يندبن كثيرا (يشتكين أكثر من اللازم) على صحتهن	1	2	3	4	5
C9	المرضى الإناث يشتكين من صحتهن لأنهن بحاجة إلى مزيد من الاهتمام مقارنة بالمرضى الذكور	1	2	3	4	5
C10	من السهل العثور على أسباب الشكاوى الصحية لدى الرجال لأن الرجال يتواصلون بطريقة مباشرة	1	2	3	4	5
C11	الرجال يلجؤون غالبا إلى الرعاية الصحية بسبب مشاكل كان ينبغي عليهم منعها (كان بإمكانهم معاجتها مبكرا أو الوقاية منها)	1	2	3	4	5

نهاية القسم الثالث

القسم الرابع:أيدولوجية أدوار النوع الاجتماعي نحو الأطباء

ترتبط العبارات التالية بأفكار حول الأطباء الذكور والإناث. أشر إلى الرقم الذي يصف بشكل أفضل مدى توافق كل عبارة من العبارات التالية مع توقعاتك

	هل تعتقد/ين أن	لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة
D1	الأطباء الذكور يضعون الكثير من التركيز على الجوانب التقنية للطب بالمقارنة مع الطبيبات الإناث	1	2	3	4	5
D2	تُطيل الطبيبات الإناث الاستشارات الخاصة بهن بشكل أكبر مقارنة بالأطباء الذكور	1	2	3	4	5
D3	الأطباء الذكور أكثر فعالية/كفاءة من الطبيبات الإناث	1	2	3	4	5
D4	الطبيبات الإناث أكثر تعاطفا من الأطباء الذكور	1	2	3	4	5
D5	الطبيبات الإناث يأخذن في الاعتبار أكثر من اللازم/حاجة تجربة المريض مع المرض	1	2	3	4	5
D6	الأطباء الذكور أكثر قدرة على مواجهة العمل من الطبيبات	1	2	3	4	5

	الإناث					
D7	**الطبيبات الإناث منخرطات عاطفيًا بشكل كبير مع مرضاهن**	1	2	3	4	5
	في كلية الطب، هل تعلمت عن اختلافات النوع الاجتماعي (الاختلافات الجندرية) في الطب؟إذا نعم كيف؟ **……..……..……**					
	كم عدد ورشات العمل أو الحلقات الدراسية المتعلقة بالفروق بين الجنسين التي تم حضورها؟ إذا نعم ماذا تعلمت؟ **……..……..……**					
	في مكان عملك، هل تطبق قضايا النوع الاجتماعي؟ إذا نعم كيف؟ **……..……..……**					
	نهاية الاستبيان					