Women's Experiences throughout the Birthing Process in Health Facilities in Arab Countries: A Systematic Review

تجارب النساء خلال عملية الولادة في المرافق الصحية في البلدان العربية: مراجعة منهجية

By: Arein Jamil Abdallah Awad

Supervisor: Dr. Niveen Abu-Rmeileh

Birzeit University

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This thesis was submitted in partial fulfillment of the requirements for the Master's in Public Health Degree from the Institute of Community and Public Health at Birzeit University, Palestine.

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Dr. Niveen Abu- Rmeileh

Thesis defense committee

Dr. Maysaa Nemer

Dr. Ozge Tuncalp

جامعة بيرزيت
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Dr. Ozge Tuncalp Ozge Tuncalp

PREFACE

This thesis was written through the eyes of a Biomedical Engineer who was involved in the program of Master's in Public Health at Birzeit University two years ago. Since the start of my journey, I came to understand that public health is a multidisciplinary field that is so crucial for every country to thrive; this idea has widened my horizon about the idea of tackelling a thesis topic that could as well benefit people of Palestine.

Gradually, I became interested in the discipline of reproductive health, reading more about it at every chance, which then, I came across the topic of mistreatment of women during facility-based childbirth. This topic is still new and from a mother's prospective, I found it interesting enough to pursue and at the same time an important topic that I should cling to, to help bring awareness to women in Palestine.

Fortunately for me, there was a thesis opportunity for a project about mistreatment at the Institute of Community and Public Health, and eagerly and gratefully I had the chance to take on the challenge. Afterwards, I started working on estimating the prevalence of mistreatment of women in hospitals in Palestine, which was no longer possible to achieve as a result of the emergency

situation that was declared in Palestine in March 2020 from the Coronavirus Pandemic.

However, and during my work on the literature review, it was indicative to me the necessity of conducting a systematic review that aims to estimate the prevalence of mistreatment of women throughout the birthing process in Arab countries in order to obtain a better understanding of the burden of this issue regionally thus reflecting the image on how it might be in Palestine.

Therefore, my supervisor and I wanted to take advantage of this emergency situation and go a step backward, and try to find an estimate for the prevalence of mistreatment in Arab countries, which may be an important justification for conducting the study in Palestine.

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First of all, I would like to express my gratitude for my thesis supervisor, Dr. Niveen Abu-Rmeileh, for providing me with this valuable opportunity. Without her guidance, persistent help and encouragement, this thesis would not have been possible. I have greatly benefited from her generous experience, I appreciate all the feedback offered by her. I will never forget her efforts and time in accelerating the whole process. Thank you Dr. Niveen for being the best supervisor.

I'm deeply grateful to Aisha Shalash for her heavy involvement in this piece of work. Starting from teaching me how to conduct a systematic review, moving to being a second independent reviewer to conduct the search strategy, title and abstract screening, full text screening, data extraction and assessing risk of bias. Then being a second reviewer for my thesis technically and lingually. Thank you Aisha for you hard work, efforts and time.

I would like to take this opportunity to give a special thanks to the members of the committee at the Institute of Community and Public Health for every information they taught me, for their constant willingness to help, and for providing me the chance to conduct a systematic review as a new methodology for the MPH thesis students.

I would also like to express my deepest appreciation for my husband Walid Aboudi. Without his encouragement and support, I would not have been able to enroll in the MPH program. Furthermore, he helped me extensively in the overall reviewing and editing this thesis, laying the whole file technically, and caring for my son to make me able to submit my work on time. Thank you my dear husband.

Above all, I want to thank God for accomplishing the MPH program, and for putting all the wonderful people in my way to help me achieve my goal. Thank you God for everything you have provided me.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Background: Childbirth is a highly personal and central event in woman's life. Hence, it is unsurprising that negative incidents that woman may face throughout the birthing process in health facilities may affect the whole woman's experience. Therefore, mistreatment of women during facility-based childbirth has become a significant public health issue globally and is gaining worldwide attention through conducting more research on it to better understand this issue and in order to reduce or prevent it.

Aims: This systematic review of quantitative studies aims to estimate the prevalence of mistreatment that women may experience throughout the birthing process in health facilities in Arab countries. In addition to identifying the types of mistreatment, terminologies, tools and methods that are used to address this topic.

Methodology: The search was conducted by two independent reviewers using the following three electronic databases: "PubMed", "EMBASE", and "CINAHL" in May 2020. Studies that met the inclusion criteria were included in the review and were assessed for the risk of bias using the 10-item tool developed by Hoy et al. for prevalence studies. The analysis was conducted based on the evidence-based typology developed by Bohren et al. as a guide to try to

estimate the prevalence of mistreatment of women throughout the birthing process in health facilities in Arab countries. The evidence-based typology includes the following seven categories: "physical abuse, sexual abuse, verbal abuse, stigma and discrimination, failure to meet professional standards of care, poor rapport between women and providers, and health system conditions and constraints".

Results: Eleven studies out of 174 were included in this systematic review. The included studies belong to only seven Arab countries out of 22 Arab countries. The topic of mistreartment of women is still new in the region. Searching within the included studies yielded a diverse and indirect terms that were a proxy for the word mistreatment. These terms were not comprehensive so as to cover different aspects of the topic. The tools that were used to measure the terms varied widely. The types that were used in measuring mistreatment in the included studies were mainly classified within the sixth and seventh categories of the evidence-based typology – which are "poor rapport between women and providers" and "health system conditions and constraints" respectively. Moreover, it was not possible to estimate the prevalence of mistreatment of women due to high heterogeneity in the 11 studies, including the different operational definitions, tools, different inclusion/exclusion criteria and different terms measured. This review prepares future researchers to face some

challenges when using the World Health Organization (WHO) standardized tool in Arab countries.

Conclusion: The quantitative studies in Arab countries did not tackle the topic of mistreatment of women throughout the birthing process in health facilities directly. It is recommended to conduct more research on this topic due to its importance in improving the quality of maternal health services thus improving maternal health in the region. However, this research should be done using a standardized and comprehensive terminology for mistreatment of women, a standardized tool that covers all aspects of mistreatment, and a standardized methodology to enable comparability between results and to allow pooling when estimating the prevalence.

ملخص

المقدمة: الولادة هي حدث شخصي للغاية ومركزي في حياة المرأة. لذلك إنه غير مفاجئ من أن الحوادث السلبية التي تواجهها المرأة خلال عملية الولادة في المرافق الصحية ممكن أن تؤثر على تجربة المرأة الكلية. وبالتالي، سوء معاملة النساء أثناء الولادة في المرافق الصحية أصبحت موضوع مهم في مجال الصحة العامة عالميا ويحظى باهتمام في جميع أنحاء العالم من خلال أجراء الأبحاث لفهم هذا الموضوع بطريقة أفضل ومن أجل التقليل منه أو منعه.

الأهداف: هذه المراجعة المنهجية للدراسات الكمية تهدف إلى تقدير مدى انتشار سوء المعاملة التي قد تواجهها النساء خلال عملية الولادة في المرافق الصحية في البلدان العربية. بالإضافة إلى تحديد أنماط سوء المعاملة، المفاهيم، الأدوات البحث والمنهجيات المستخدمة لدراسة هذا الموضوع.

منهجية الدراسة: أجري البحث من قبل مراجعين اثنين مستقلين باستخدام الثلاث قواعد البيانات الإلكترونية التالية: "PubMed", "EMBASE", and "CINAHL" في شهر أيار عام ٢٠٢٠. الدراسات التي طابقت معايير الدخول في الدراسة هي التي شملت في الدراسة و قيّمت لخطر التحيّز باستخدام أداة من عشرة بنود طورها هوي و زملاؤه لدراسات مدى الانتشار. تحليل البيانات كان وفقا للتصنيف القائم على أدلة الذي طورته بورن وزملاؤها كدليل لمحاولة تقدير مدى انتشار سوء معاملة النساء خلال عملية الولادة في المرافق الصحية في البلدان العربية. التصنيف القائم على أدلة يتضمّن السبع فئات التالية: الإساءة الجسدية، الإساءة الجنسية، الإساءة اللفظية، وصمة العار والتمييز، الفشل في تلبية المعايير المهنية للرعاية، علاقة ضعيفة بين النساء ومقدمي الخدمات الصحية، حالات وقيود النظام الصحي".

نتائج الدراسة: إحدى عشر دراسة أدخلت في هذه المراجعة المنهجية من مئة وأربع وسبعين. هذه الدراسات الإحدى عشر تعود لسبع دول عربية من الاثنين وعشرين دولة عربية. موضوع سوء معاملة النساء ما زال جديدا في هذه المنطقة. نتج البحث في الدراسات التي دخلت هذه المراجعة بمفاهيم متنوعة وغير مباشرة لمفهوم سوء المعاملة. هذه المفاهيم ليست شاملة لتغطي جوانب مختلفة من الموضوع. أدوات البحث المستخدمة لقياس هذه

المفاهيم متنوعة جدا. الأنماط المستخدمة في قياس سوء المعاملة في الدراسات الإحدى عشر تصنف بشكل رئيسي تحت الفئة السادسة والسابعة من التصنيف القائم على أدلة، وهما علاقة ضعيفة بين النساء ومقدمي الخدمات الصحية وحالات وقيود النظام الصحي على التوالي. أيضا، لم يكن بالإمكان تقدير مدى انتشار سوء معاملة النساء بسبب الدرجة العالية في عدم التجانس بين الدراسات الإحدى عشر الذي يشمل اختلاف في كيفية القياس، وأدوات البحث، ومعايير الدخول في أو الاستبعاد من الدراسة، والمفاهيم المقاسة. هذه المراجعة المنهجية تحضر الباحثين في المستقبل من مواجهة بعض التحديات عند استخدام الأداة الموحدة التي طورتها منظمة الصحة العالمية في البلدان العربية.

الخلاصة: الدراسات الكمية في البلدان العربية لم تستعرض موضوع سوء معاملة النساء خلال عملية الولادة في المرافق الصحية بشكل مباشر. فمن المستحسن إجراء أبحاث أكثر على هذا الموضوع وذلك لأهميته في تحسين جودة خدمات صحة الأم التي بدورها تؤدي إلى تحسين صحة الأم بالمنطقة. لكن يجب أن يتم إجراء هذه الأبحاث باستخدام مفهوم شامل وموحد لسوء معاملة النساء، وأداة بحث موحدة تشمل جميع جوانب هذا الموضوع، بالإضافة إلى منهجية بحث موحدة لإتاحة المقارنة بين النتائج والسماح بتجميعها من أجل إتاحة تقدير مدى انتشاره.

INTRODUCTION

Increasing the rates of facility-based childbirth is one of the main pillars in reducing the global maternal and neonatal morbidity and mortality (1). This is highly dependent on women's experiences throughout the birthing process. Any unpleasant behavior that woman may be exposed to during her facility-based childbirth may affect her overall decision of using health facilities for childbirth. Such incidents were documented in both high and low income countries, making this a truly and global public health issue (2).

There is no global definition for the unpleasant behavior that women may face during facility-based childbirth (3). There are many terminologies used to describe these incidents in different parts of the world. Such terminologies may include "obstetric violence", "disrespect and abuse" and "dehumanized care" (4). This variation in describing the unpleasant behaviors was due to cultural and linguistic differences (4, 5), in addition, to the various research methods that were used to document these experiences (1).

For the purpose of this thesis, the adopted terminology is "mistreatment of women during facility-based childbirth" that was proposed by the World

Health Organization (WHO) research team to describe these negative incidents (6). The research team concluded that this terminology is more broad and inclusive in comparison to the other used terminologies for the following reasons: First, women's own birth experiences should be central when describing this topic. Second, the other terminologies imply a level of intended actions or "acts of commission" (such as "physical or verbal abuse") that is not enough to describe all forms of mistreatment. The mixed-method systematic review showed that mistreatment can include unintended actions or "acts of omission" (such as "lack of emotional support" and "long delays to staff shortages"). Finally, the term should be inclusive in order to include women's own experiences, women-provider interactions, the environment of the health facility, and the broader health system. Reflecting on all these dimensions will better help in understanding the topic of mistreatment (1).

Although this problem is common worldwide, there is limited data on mistreatment of women during facility-based childbirth in Arab countries. It is not known yet what terminologies, typologies and methods are used to address this topic in this region of the world. Therefore, conducting a systematic review is important to identify the status of the conducted studies about mistreatment, along with the used terminologies, typologies

and methods. In addition, to try to estimate the prevalence of mistreatment of women during facility-based childbirth as an evidence-based strategy to alleviate this problem in Arab countries, and improve the women's childbirth experiences in health facilities. Using research to understand the nature of this problem and its adverse effects will develop the political will to eradicate it (7). However, the eradication shoud be aligned with ensuring compliance with human rights standards that protect the women's rights in the context of childbirth (8).

PROBLEM SIGNIFICANCE AND GAP IN KNOWLEDGE, REVIEW QUESTION, HYPOTHESIS AND OBJECTIVES

Problem Significance and Gap in Knowledge

The birthing process that every mother experiences has memorable details that might affect her health both positively or negatively, and consequently her future decision of using health facilities for giving birth. Enhancing this experience for women across the world while ensuring high quality of care would encourage women to use these facilities and hence reduce the overall maternal mortality (9).

Mistreatment of women in this context has become a significant public health issue globally and is gaining worldwide attention. A growing body of research on women's experiences during facility-based childbirth is being conducted to better understand this problem along with the associated factors. Literature proves that mistrearment of women has adverse effects on both the mother and the baby and addressing this issue may improve maternal health outcomes (10).

Despite the growing research on this topic, the literature review chapter has shed the light on the lack of conducted studies about mistreatment in Arab countries. Therefore, the aim of this systematic review will be to

estimate the prevalence of mistreatment of women throughout the birthing process in Arab countries and to identify the terminology and the tools used to measure it.

This in turn will help to better understand the burden of this problem regionally, try build our own typology, and finally to identify gaps in the conducted research in Arab countries.

Meanwhile, to the best of our knowledge, there are no systematic reviews conducted on this topic for Arab countries. Registered protocols for related systematic reviews on PROSPERO were checked and none were found to address the mistreatment of women during the birthing process in the Arab World.

Review Question

What is the overall prevalence of mistreatment that women may experience throughout the birthing process in health facilities in Arab countries considering the different definitions of mistreatment?

Sub-research Questions

1. What are the types of mistreatment considered in measuring the mistreatment of women throughout the birthing process in health facilities in Arab countries?

2. What is the terminology used in measuring the mistreatment of women throughout the birthing process in health facilities in Arab countries?
3. What are the tools used to measure the mistreatment of women throughout the birthing process in health facilities in Arab countries?
4. What are the methods/approaches used to measure the mistreatment of women throughout the birthing process in health facilities in Arab countries?

Hypothesis

Women's experiences of mistreatment throughout the birthing process is expected to be prevalent in Arab countries, and the types, terminology, tools, methods and approaches, that are used to measure it are expected to be diverse.

Objectives

The objectives of this systematic review with reference to mistreatment of women throughout the birthing process in health facilities in Arab countries are outlined as the following:

1. To estimate the prevalence of mistreatment that women may experience.
2. To identify the types of mistreatment considered in measuring mistreatment.

3. To identify the terminology used in measuring this mistreatment.
4. To describe the tools used to measure mistreatment.
5. To determine the methods and approaches used to measure mistreatment.

CHAPTER 1: LITERATURE REVIEW

1.1 Introduction to Mistreatment

The topic of mistreatment is a global public health issue, and it includes several types such as mistreatment at workplace, mistreatment of medical students, mistreatment of elderly people, mistreatment of children and mistreatment of women including mistreatment of women during facility-based childbirth. Globally, millions of people are suffering from one or more types of mistreatment. It is considered a serious human rights violation to which the World Health Organization (WHO) has been drawing serious attention to through conducting more research to define the problem and identify its causes and risk factors, and implementing effective interventions to reduce it (11, 12).

Addressing mistreatment remains an enduring challenge in each of its types, since there has been no standard definition for either the type, nor the methodology, nor standardized approach to measure mistreatment (13-16). Therefore, each type of mistreatment is a complex topic on its own to be able to define and measure. This emphasizes the need for using a standardized definition and methodology, in order to assess the burden of this public health issue.

Moreover, each type of mistreatment has been associated with several factors that promote or prevent such unpleasant behavior. Research has shown that it could have serious negative impact on the mistreated people and may increase the risk of morbidity and mortality (13-20).

The literature review below will cover the several types of mistreatment along with the associated factors and poor outcomes; as well as clear the way for digging deeper into mistreatment against women during facility-based childbirth.

1.2 Mistreatment at Workplace

Workplace mistreatment such as psychological aggression, abusive supervision, bullying, physical abuse, or interpersonal conflicts, has received worldwide attention (15, 21, 22). It does not have a specific or standard definition but it refers to unfair treatment due to race, ethnicity, age, gender and religion. It might be overt or covert, and can occur at an interpersonal level or policy-related level exerted by managers, co-workers or others in the workplace (15, 21).

Furthermore, exposures to such type of mistreatment are associated with several adverse health effects. Such as headache, anxiety and depression,

chronic stress, and occupational and safety health issues especially for those who experience mistreatment at the interpersonal-level (21, 23).

1.3 Mistreatment of Medical Students

Mistreatment of medical students during medical education is a widespread concern. Studies have shown high prevalence of mistreatment among medical trainees that has not declined over time despite increased awareness of the problem (19). Defining the concept of learner mistreatment is a difficult issue because it is susceptible to multiple interpretations, differing based on the perceptions of learners themselves on what constitutes mistreatment and varies at different stages of clinical training (24).

This type of mistreatment includes several forms faced by the medical students, such as physical abuse, verbal abuse, sexual abuse and discrimination on the basis of age, ethnicity and religion (14, 19). These forms can differ by gender, as women are more likely to be exposed to sexual abuse than men. However, men are more likely to be exposed to physical abuse in comparison to women (25). Furthermore, students, who have experienced such forms of mistreatment, reported being distressed, feeling depressed, decreased work satisfaction and burnout (25-27). Studies also showed that the perpetrators who exert the most

mistreatment of medical students are the patients, friends and university staff (14, 19, 25, 28).

1.4 Mistreatment of Elderly People

Elder mistreatment is becoming a significant public health issue since it occurs too frequently but not in an obvious way. It is predicted to increase because many countries' life expectancy has increased; thus are experiencing rapidly ageing populations (29). This type of mistreatment includes physical, sexual, psychological, emotional and financial abuse, in addition to neglect. This leads to a serious loss of dignity and respect (13, 30-32); resulting in a violation of human rights (33).

Mistreatment for elders can take place in any setting and can be perpetrated by professionals or any individual whom the elderly trusts. It is influenced by multiple risk factors related to care recipient, caregiver burden and social factors (13, 17, 34). As an example, the caregiver with feelings of burden, stress and anxiety is more likely to translate these sensations into inappropriate behavior when caring for an elderly (17, 34).

Studies showed that social support is an important factor in reducing elderly mistreatment, for example, caregivers who lack social support were at higher risk of behaving improperly with the elderly (13, 17, 31, 34-36).

Additionally, a care recipient who is over 74 years old, female gender and has intellectual or physical disability is more susceptible to mistreatment (13, 32, 34, 37, 38).

Early detection and management have many challenges since the measured prevalence varies in response to the employed definition of the problem, the methodology used, the measurement instruments, the setting, and the study population (13, 30, 32, 36, 39). Despite these challenges, the literature showed that this type of mistreatment has negative impacts on the health of the elderly, resulting in worsening the existing medical conditions, the quality of life, chronic pain, depression and anxiety, loneliness symptoms, increase in the number of hospital admissions, chronic burden of chronic conditions and more difficulties in the activities of daily living (18, 36, 40, 41).

1.5 Mistreatment of Children

Child mistreatment is a global problem that is difficult to assess or study but has immediate and long-term consequences (42). The prevalence varies widely depending on the chosen definition, the tool and the used method of research. It mainly includes several forms such as physical

abuse, psychological aggression, neglect, rejection, sexual abuse, exploitation and violence between parents (16, 43, 44).

For a child experiencing any form of mistreatment is detrimental to the overall quality of his life. This type of mistreatment has direct association with stress that damages his brain development and harms the nervous and immune systems. This would lead to delayed cognitive development, poor school performance, and mental health problems (16, 42, 44).

Nonetheless, the effects of this type differ if the offender is father-only, mother-only or both parents (43). The factors that may influence child mistreatment might be at the individual level such as gender and age; as an example, boys are more vulnerable to mistreatment in comparison to girls (44) and usually occurs in children under 18 years of age (16). Furthermore, factors may also occur at the family level, such as, number of siblings, parental education, employment and income. Lastly factors occurring at the community level include school type, services availability and accessibility, and social environment (44).

1.6 Mistreatment of Women

Mistreatment of women is an important public health problem, a gender inequality issue and a serious violation of human rights (45). It mainly

includes physical, sexual, and psychological mistreatment exerted by an intimate partner or non-partner (45). The WHO is bringing attention to this topic through research and developing of tools to highlight its magnitude, its risk factors and consequences (46).

However, developing clear definition that permits comparison across settings was a main challenge in conducting research on violence against women. This resulted in estimates for the prevalence of mistreatment of women that were incomparable and varied between settings and across countries (47). Therefore, WHO initiated a multi-country study in ten countires (i.e. Bangladesh, Brazil, Ethipia, Japan, Peru, Namibia, Samoa, Serbia and Montenegro, Thailand, and United Republic of Tanzania). In this study, the WHO research team used single methodology and definition to estimate the prevalence of violence against women and enable comparability across the previously mentioned countries. The results showed that violence against women by a male intimate partner was widespread in all the included countries with a variation between and within the countries (48). For example, the prevalence of "ever-partnered-women who had experienced physical or sexual violence or both by an intimate partner in their lifetime" was 15% in Japan, 33% in Brazil, 57.5% in Bangladesh and 71% in Ethiopia (48).

Factors associated with mistreatment occur at the individual, family, community and society levels. For example, if men have low education, have experienced child abuse, witnessed family violence, believed in unequal gender norms that privilege higher status for men and lower status for women, then they are more likely to mistreat women. Likewise, if women have low education, exposed to mothers being abused, experienced abusive childhoods, accepted unequal gender norms that honor men and disregard women, then they are more likely to experience mistreatment (20). Despite that, the associated factors of this type of mistreatment has adverse effect on the women's physical, mental, psychological, sexual and reproductive health (20).

1.7 Mistreatment of Women during Childbirth

In addition to the violence that women may experience from either an intimate partner or non-partner, women may experience mistreatment during facility-based childbirth. Accordingly, there has been a growing body of literature on addressing mistreatment of women during facility-based childbirth based on the WHO recently published statement. This statement calls for greater action to prevent and eliminate the disrespect and abuse that women experience during facility-based childbirth. Such actions may include further research on defining and measuring facility-

based disrespect and abuse worldwide. Actions may also include designing and implementing programs that improve quality of maternal health care focusing on respectful care as a main component of quality care. In addition to emphasizing that women have the rights to dignified and respectful care throughout pregnancy and childbirth (3).

Many women across the globe experience disrespect and abuse during facility-based childbirth. This type of mistreatment would in turn affect the mother's decision in seeking and using maternal health services (2). Therefore, eliminating and preventing mistreatment during facility-based childbirth globally may increase the number of women who seek health facilities for childbirth. This would result in reducing global rates of maternal morbidity and mortality (3).

Reduction of maternal mortality by 45% worldwide by the year 2015 was one of the successes of the Millennium Development Goals that aimed to improve maternal health through emphasizing on facility-based childbirth attended by a skilled health personnel (49, 50). Despite this, in the year 2017, approximately 810 women have passed away every day from preventable pregnancy- or childbirth- related issues. While the global

maternal mortality was estimated in 2017 to be around 295,000 with 94% of these deaths happens in low and lower middle-income countries (51).

As a result, countries have put new targets to reduce the global maternal mortality even further by the year 2030 as part of the Sustainable Development Goals (50). Achieving this further reduction in mortality rate is dependent on the availability of well-equipped facilities to provide safe deliveries by skilled health professionals, accessibility by the elimination of the user fees for maternal health services, and most importantly quality of care to ensure the best outcomes for the mother and the baby (52).

The quality of care encompasses three main pillars: structure, outcome, and process. The structure represents the health system that enables access to the quality of care and allows the process of care to take place. The outcomes are the positive changes in the health status and patient satisfaction. Lastly, the process covers eight standards of quality and can be divided into three main categories; provision of care, experience of care and health system resources (53, 54). The forthcoming will focus only on the portion related to experience of care.

Looking deeply into the subject, the experience of care includes three of the eight quality standards that are important in influencing the woman-

provider interaction and interrelated with pregnancy outcomes (53, 54). Firstly, the communication between the woman and the provider should be effective and responsive to her needs and preferences. Secondly, a woman should receive care with respect and dignity. Thirdly, a woman should be provided with emotional support of her choice (53, 54).

Aligning these standards should lead to a good woman-provider interaction which in turn would give the woman a positive birth experience (53). Despite the above, a growing body of literature is showing that women are still experiencing incidents of mistreatment during childbirth at health facilities (3).

1.7.1 Study Designs

This section will introduce the different methodologies used to measure the mistreatment of women during facility-based childbirth along with identification of their limitations.

1.7.1.1 Quantitative Studies

Quantitative results from several studies on women's experiences during facility-based childbirth showed high prevalence of mistreatment that manifests in various types of unpleasant behaviors (55-76). In Kenya, the overall prevalence was found to be 20%. It was measured through private

exit interviews in the hospital with women discharged from postnatal wards - using a client exit tool that was developed and validated based on the landscape analysis of Bowser and Hill (55). However, a main limitation of this study was that women may have underreported the unpleasant behaviors because they were afraid that reporting may affect their future use of services at the same facility since the interviews were conducted within the facility grounds even though they were conducted in private conditions (55).

In Ethiopia, in the year 2017, a prevalence of 36% of the women who were observed during normal labor and delivery services were not treated with respect. They experienced at least one form of mistreatment during their childbirth. These women were observed by trained field workers using a structured observation checklist of the provider-client interaction (77).

This method of data collection had a main limitation that is called the Hawthorne effect, which happens when providers know that they are being observed, they show acceptable behavior when providing services. However, this effect might diminish with each observation and each provider will be observed more than once. Furthermore, the used

observation tool was not validated in the country, because it was recently developed in Ethiopia (77).

An additional institution based study conducted in Ethiopia in the year 2018, where they used face to face interviews with mothers who gave birth in health facilities. The authors used a structured questionnaire that was prepared based on literature reviews and from "Maternal and Child Health Integrated Program (MCHIP)" in the English language but was validated in Ethiopia. This study found that 43% of women reported experiencing at least one form of disrespect and abuse in health facilities during childbirth (78).

The results of this study is lower than the one that reported an overall prevalence of 78.6% in the year 2015 in Ethiopia as well, where they interviewed mothers immediately before discharge from the health facility. They used an interviewer-administered questionnaire that was developed by the MCHIP in the English language but was only translated into the national language without validation (79).

However, the prevalence of disrespect and abuse reached up to 91.7% in another facility based study conducted in Ethiopia as well in 2019. To justify for this high prevalence, the authors claimed that they reduced

social desirability and recall biases through delaying the data collection until the time of discharge from the hospital which is at least 6 hours after birth and not immediate after childbirth. In addition, they excluded mothers who gave birth by cesarean sections, since these mothers are usually consented and better cared for, thus leading to underestimate the prevalence of disrespect and abuse (73).

In 2020, an overall prevalence of disrespect and abuse was measured to be 78.2% resulted from a community based study conducted in Ethiopia. In this study, the authors recruited mothers who gave birth at public health facilities during twelve months prior to the study. However, this may result with an over or under estimated prevalence due to induced recall bias, or women may more likely remember unpleasant experiences only (71).

Overall, measuring the prevalence of mistreatment is a complex issue, since women's perceptions of their childbirth experience changes over time and in different locations (70, 80). For example, a finding was obtained from a study conducted in urban Tanzania to measure the prevalence of disrespect and abuse during childbirth in health facilities. In this study, women - during labor and delivery - were observed and interviewed two times. First, immediately after delivery and before

discharge from the facility, and second, in their homes four to six weeks after delivery (80).

The authors of the above-mentioned study adapted tools from similar projects conducted in Kenya and made slight changes to accommodate them to the context in Tanzania but without reporting on validation. Accordingly, the authors found that the prevalence of participants, who reported experiencing any form of disrespect and abuse when they were interviewed three to six hours postpartum before discharge from the facility was 15%, but this number rose to 70% when the same participants were interviewed four to six weeks later in their homes (80).

The authors hypothesized that these differences may be due to the fact that women after delivery are usually exhausted thus may not have time and energy to reflect on their childbirth experience until they have rested well a few weeks later. In addition, these differences are maybe as a result of women not being comfortable to report negative experiences while they are in the same health facility. Despite the above, the results from direct observations of women-provider interactions during labor and delivery confirmed the high rates of some sort of abusive behavior (80).

While another example from Tanzania reported frequency of disrespect and abuse that varied between the results of exit and follow-up interviews. The prevalence rose from 19% at the exit interviews done on facility grounds to 28% in the follow-up interviews done at participants' homes 5-10 weeks after delivery. The authors interpreted this variation due to courtesy bias, where women were reluctant to disappoint researchers by reporting negative experiences, especially if the researchers were perceived to be affiliated to the health facility. However, this study lacked the provision of an objective measure (70).

In India, there was a discordance between the prevalence of mistreatment reported through direct observation of deliveries and the prevalence of mistreatment reported through follow-up interviews conducted with the same women (i.e. for those whom their deliveries were observed) within 2-4 weeks after delivery. They used measures that included the same items focused on provider abuse, harsh delivery practices and non-presence of the provider. This study showed that 9.1% of women reported mistreatment on these same items compared to 22.4 % reported by observers which in turn suggested that there may be under reporting of mistreatment by women (81).

Further to add, the prevalence of several types of mistreatment varies throughout the birthing process across admission, delivery and postpartum care as per the findings of a study that was conducted in Kenya in the year 2018. For example, the prevalence of verbal abuse was 18% during admission while it was 9.3% during delivery. Physical abuse was only observed during delivery with a prevalence of 5.4%. The prevalence of lack of privacy was 67% during admission, 78% during delivery and 88% in the postpartum period. The prevalence of unhygienic practices was 75% during delivery and 68% in the postpartum period. Finally, the prevalence of lack of informed consent was 95% in the postpartum period (82).

1.7.1.2 Qualitative Studies

Results from qualitative studies showed that women were exposed to disrespectful care (83-92). A qualitative study was conducted in Rwanda - to better understand what it means to have a negative childbirth experience - characterized disrespectful care by "neglect, verbal or physical abuse, insufficient information, and denial of husband as a companion", and also showed that being poorly treated by one health worker is enough to negatively affect the overall childbirth experience for a woman (83).

Moreover, a qualitative observation study, that was conducted in India, identified five key areas of concern in the "process of care" for the woman's childbirth experience from admission to discharge. These areas include "inadequate clinical care and patient safety, information sharing, compromised privacy, disrespectful care and informal payments" (84).

In Ghana, the influence of mistreatment showed that it may affect the future decisions of mothers regarding the use of the facility for childbirth (86), and found to be a key barrier to the use of facility-based childbirth in low- and middle-income countries (2, 93). A systematice review confirmed as well that a negative childbirth experience may impact a woman's future reprdoductive decisions. These decisions include not having another child, delaying a subsequent birth, and mother's preference for cesarean section in subsequent pregnancies (94).

However, a study conducted in Nigeria showed that women considered the incidents of disrespect and abuse as a normal and expected behavior from the healthcare provider even though they perceived it as dehumanization of women. In addition they believed that these actions are unintended and will not affect their choice of using healthcare facility for childbirth because they feel that facility-based childbirth is safer than

home-based childbirth in order to prevent complications from occurring (95).

A study published in 2020 explored the acceptability of the mistreatment of women during facility-based childbirth, and found that pinching/slapping, verbal abuse, neglect and physical restraints were unaccepted behaviors by most of the participants (i.e. women, healthcare providers and facility administrators). However, there are some mistreatment events that may be accepted by the women and providers, if these events are used to speed up labor, or to provide protection or encouragement for women to have a good outcome (96).

Another study showed that healthcare providers recognized cases of disrespect and abuse, and they were aware that these cases are a violation of woman's rights to give birth with dignity and respect. They perceived these incidents as unintended and only to ensure the safety of the woman and her unborn child (97). Though they were aware that these practices may affect the choice of the mother to use healthcare facility for childbirth, or those mistreated mothers may discourage other women to use healthcare facility for childbirth (97).

This mistreatment that may affect the mother's choice of using healthcare facility for childbirth opposes the efforts towards achieving the Sustainable Development Goal 3 which offers a renewed opportunity to see improvements in maternal health (98).

A notable limitation of qualitative studies is that women's perceptions of their birth experiences are subjective, thus may not reflect an accurate image of the frequency of mistreatment (4).

1.7.1.3 Mixed-methods Studies

Results from mixed-methods study designs also showed high prevalence of mistreatment during facility-based childbirth (99-102). In Nigeria, the quantitative part showed 66% of mistreatment mainly from "the health system conditions and constraints" and "poor rapport between the women and the providers". On the other hand, the qualitative part supported the high prevalence, highlighted the different forms of mistreatment that may occur during institutional birth and showed that mistreatment may affect the mother's choice about where to deliver (99).

A study published in 2020 in Kenya used the quantitative to assess providers' perceptions of disrespect and abuse during childbirth, and the qualitative data to assess drivers of disrespect and abuse. Some providers

acknowledged that events of verbal and physical abuse, lack of privacy and discrimination occurred. The drivers behind such occurrences included stress and burnout, perceptions of women being difficult, and poor facility infrastructure. However, most of the providers reported that women were generally treated with respect and dignity. This may be due to social desirability bias since providers may not report negatively about themselves and their facilities (102).

Nonetheless, the mixed-methods approach appeared to be the most effective strategy to measure mistreatment of women during facility-based childbirth. However, it requires financial and human resources that are sometimes difficult to attain in low-resource countries (4).

1.7.2 Definitions of mistreatment

The mistreatment of women has no certain definition yet and may also be labelled as "obstetric violence", "dehumanized care", or "disrespect and abuse" (4). However, there are several publications that have proposed definitions and conceptual frameworks for understanding the concept of mistreatment (6, 103, 104).

In 2010, Bowser and Hill published a landscape analysis in which they described disrespectful and abusive care during childbirth in seven

categories. These categories are as follows: "physical abuse, non-consented care, non-confidential care, non-dignified care (including verbal abuse), discrimination, abandonment and detention in health facilities" (103). After this publication, various studies have employed this definition, but used different criteria and study methodologies to measure prevalence; thus leaving very limited possibility for comparison (5).

In 2015, WHO researchers Bohren and colleagues stated that the seven categories of disrespect and abuse in Bowser and Hill's landscape analysis lack operational definitions that can be standardized and comparable. They then conducted an extensive mixed-method systematic review to develop a standardized typology of what constitutes mistreatment of women during childbirth using 65 studies from 34 countries (6).

The WHO team identified seven typologies of mistreatment of women during childbirth: "physical abuse, verbal abuse, sexual abuse, stigma and discrimination, failure to meet professional standards of care, and poor rapport between women and providers, and health system conditions and constraints" (6).

They emphasized that mistreatment may stem from both intentional or unintentional actions either by healthcare providers or from conditions

within the health facilities and system. They also argued that the term "mistreatment" is more inclusive than "disrespect and abuse" because it has a broad scope of categories and takes into consideration different sources of mistreatment. With the hopes that this typology will help in developing standardized tools to measure mistreatment worldwide (6).

1.7.3 WHO's Multi-country Research Study

With the growing recognition of mistreatment of women during facility-based childbirth, the WHO saw a clear need to develop standardized evidence-based measurement tools that can be applied at a global level in order to define, measure and prevent mistreatment (105). As a result, in the year 2014, the WHO initiated a multi-country research study to develop and validate two tools (i.e. labor observation and community survey) to measure the mistreatment of women during childbirth in health facilities in four countries: Ghana, Guinea, Myanmar and Nigeria (105).

The study was a two-phased, mixed-methods study design, with phase one aiming to develop and validate a standard approach that would provide data on the burden of mistreatment that is comparable across settings and over time (105). It was a formative phase that relied on two main research activities. The first being Bohren's mixed-methods systematic review of

mistreatment of women during facility-based childbirth that proposed an evidence-based typology for the term 'mistreatment' (6). The second activity was qualitative research studies conducted in the four countries among women, healthcare providers and administrators to better understand their perceptions and experiences of mistreatment of women during facility-based childbirth (86, 96, 106-109).

The findings from phase one was used to develop an evidence-based definition, identification criteria and two tools for measuring the mistreatment in health facilities. The first tool was an observation tool for direct observation of women and healthcare provider during labor and delivery in facilities. The second tool was a survey tool of women's self-reported experiences of mistreatment during labor and delivery in facilities administered in postpartum period (110).

Phase two of this study aimed to apply these tools and to report the prevalence of mistreatment in the same four countries. In these countries they were able to conduct 2016 continuous observations of women from admission up to 2 hours postpartum, and 2672 interviewer-administered surveys up to 8 weeks postpartum. During the labor observation 41.6% of observed women experienced physical abuse, verbal abuse, or stigma or

discrimination, that is mostly occurring 30 minutes before birth until 15 minutes after birth (i.e. highly focused during the 15-minute period before birth). In the community survey, 35.4% of surveyed women reported physical abuse, verbal abuse or stigma or discrimination during childbirth with a variation between the four countries; the least prevalence was in Myanmar (20.8%) and the highest was in Nigeria (48.3%) (111).

1.7.4 Associated Factors

Although the conducted studies employed different definitions and study designs for mistreatment, and it was not possible to compare the results of these studies with each other in terms of its occurrences and its associated factors, there are still several factors associated with mistreatment of women throughout the birthing process (5).

These factors include age, number of previous births, attending antenatal care, time of delivery (day or night), method of delivery (vaginal vs. cesarean), marital status, and facility sector (governmental or private), education level, economic situation, type and sex of birth attendant during childbirth, birth companion, race, ethnicity and immigration status (56, 57, 69, 70, 73, 87, 111-113).

As an example, in the multi-country study, younger women (15-19 years old) were more likely to experience physical abuse, verbal abuse, stigma or discrimination when adjusting for country, education, marital status, and parity (111).

In Ghana, women who are HIV positive, attended by a midwife rather than an obstetrician/gynecologist, and having lower monthly income are more likely to report mistreatment (56). Another study conducted in Ethiopia found that when a mother's delivery was attended by a female care provider, reporting of disrespect and abuse events were lower when compared to a mother's delivery that was attended by male care providers (73).

Moreover, having a birth companion during labor and delivery is associated with respectful maternity care and can improve experiences of women during labor and delivery. Presence of birth companions will provide women with the emotional and physical support and the comfort they need from their loved ones, thus reducing the burden from the health workers (77).

Another study showed that higher prevalence ratio of mistreatment was detected among younger mothers, who were in the low family income

category, and gave birth in public sectors. Also it was detected among mothers who transferred to cesarean section after the beginning of labor (57).

A study conducted in the United States showed that blacks, hispanics and indigenous women, primiparas, having unplanned cesareans or assisted vaginal births, and giving birth at hospitals were more likely to report mistreatment. However, white women, having a vaginal birth, multiparous, having a baby after 30 years old, and giving birth at home or in free standing birth center were less likely to report mistreatment (113).

Another example from a study conducted in Tanzania has classified the factors that are associated with mistreatment into client factors such as age and companionship, and provider factors such as type of provider and working hours. Nurses/midwives as compared to clinicians, and providers who have high workload of labor and delivery compared to low workload were found to have less positive client-provider interactions thus providing lower levels of respectful maternity care (114).

Another study found that the drivers of mistreatment can be described at five different levels: “individual, family, community, health system and policy levels”. For the individual level drivers, many women did not know

their rights and what kind of treatment they should expect from healthcare providers. For the family level and community level drivers, social norms and gender inequalities contribute to the normalization of disrespect and abuse that women experience during facility-based childbirths (115).

At the health system level, drivers may include poor management for the available human resources (i.e. understaffing made health providers neglect women due to the urgency of other cases). Drivers may also include poor supervision of staff (i.e. health providers may skip night duties leaving women feeling abandoned, medical malpractice and excessive vaginal examinations). In addition to poor supervision of facilities that leads to poor management of supplies and commodities, staff attendance and quality assurance are all associated with mistreatment (115).

While for the policy level drivers, the weak implementation of the existing policies or newly developed polices and the very little accountability due to poor leadership are also contributors to mistreatment of women (115).

The above aligns with a systematic review finding that showed how the implementation of a multi-component policy for respectful maternity care (i.e. training in values and attitudes transformation, communication skills training, setting up quality improvement teams, disrespect and abuse

monitoring, improving privacy in wards, improving staff conditions, and educating women on their rights) appeared to reduce women's experiences of unpleasant behaviors and increase the women's experiences of respectful care (116).

In addition, several studies showed how the health system impacts the women's childbirth experience (117, 118). It contributes to the mistreatment of women at a different level as a result of poor facility conditions, imperfect environments, poor management, outdated mode of clinical practice, lack of privacy, lack of necessary equipment and supplies, lack of sufficient staffing, high patient workload, lack of supportive supervision and lack of motivation (117-120).

1.7.5 Adverse Outcomes of Mistreatment

The exposure of women to mistreatment during childbirth can lead to serious and negative health outcomes either for the mother or the baby (3, 83). Such outcomes may include feelings of fear, sorrow, disrespect and insecurity for them as mothers and for the expected baby, distrust and lack of confidence in the health care providers, sense of weakness and powerlessness, which as a result would affect the mother's choice or recommendation of not using the health facility in the future, in addition

to, maternal health complications that sometimes might be life-threatening situations in the case of ignoring severe symptoms (83).

A large prospective population-based cohort study assessed the association between disrespect, abuse, and postpartum depression, which showed that women who were exposed to disrespect and abuse during their childbirth are at higher risk of having postpartum depression even if women did not have antenatal depression. In addition women who have experienced several types of unpleasant behaviors may have increased likelihood of having postpartum depression exponentially, particularly among women who were not depressed during pregnancy (121). Furthermore, the study showed that women who had previous negative birth experiences are more likely to develop fear of childbirth and are at increased risk of undergoing an elective cesarean section (122).

In addition to the above, the infant can also be adversely affected by their birth, because the childbirth experience can have a positive or negative impact on his behavior. A positive and calm birth and postnatal experience may lead to a calm infant, while physical and emotional stress during birth and postnatal experience may lead to challenging infant behaviors such as crying and feeling unsettled. The impact of this can be direct (i.e. pain and

stress during birth might physiologically affect the infant) or indirect (i.e. birth experience might affect the wellbeing of the mother thus affecting her interactions with her infant, and her ability to care for and to feed her infant), which in turn may lead to long term consequences for the infant and his mother (123).

In conclusion, mistreatment of women during childbirth not only violates the human rights of women to attain the highest standard of health, which includes "the right to dignified and respectful healthcare throughout pregnancy and childbirth, as well as the right to be free from violence and discrimination", but it can also threaten women's rights to life (124).

Therefore, assessing the magnitude of mistreatment and understanding this problem can have crucial implications for developing strategies to promote respectful maternity care to save women's lives and improve maternal and newborn health.

However, the above literature review showed lack of conducted studies about mistreatment in Arab countries. From this keypoint, the importance of conducting a systematic review appeared in order to obtain a better understanding about the status of conducted studies of mistreatment of women during facility-based childbirth in Arab countries. In addition to

trying to estimate the prevalence of mistreatment along with identifying the terminology and tools used to measure it.

CHAPTER 2: RESEARCH METHODOLOGY

This systematic review was conducted following the protocol that was registered on PROSPERO with ID number CRD42020182806 (125) and shown in **ANNEX 1**.

2.1 Search Strategy

The search was conducted using the following three electronic databases: "PubMed", "EMBASE", and "CINAHL". The search was done by two independent reviewers. The first reviewer conducted the search on May 13th, 2020, and the second repeated the search on May 30th, 2020 to ensure consistency of the search results.

The search was limited to studies published in English and Arabic with no restrictions on the publication year. In addition, the search included all observational studies that reported on the prevalence of mistreatment of women throughout the birthing process in Arab countries (i.e. cross-sectional and cohort).

The search was conducted using the keywords as shown in Table 1 below. The search keywords within each field (i.e. mistreatment, health facilities, childbirth, and Arab countries) were added together using OR, afterwards,

the search keywords were grouped together between each of the fields using AND. These keywords were determined based on the review of literature (2, 4, 6, 61, 63, 67, 116, 126-132). **ANNEX 2** presents screenshots for the search strategies used in EMBASE, PUBMED and CINAHL respectively.

Table 1: Search Keywords

Field	Search Keywords
Keywords for mistreatment	1. Mistreatment 2. Disrespect* 3. Abus* 4. Respect* 5. Neglect* 6. Confidentiality (MESH) 7. Informed consent 8. Physical abuse (MESH) 9. Dignity 10. Stigma 11. Assault 12. Attitude of health personnel (MESH) 13. Healthcare disparities (MESH) 14. Obstetric violence 15. Accessibility of health services (MESH) 16. Birth experience 17. Childbirth experience 18. Labor experience 19. Labour experience 20. Physician-Patient Relations (MESH)

Keywords for health facilities	1. Health facilities (MESH) 2. Delivery rooms (MESH) 3. Facility-based childbirth 4. Birthing centers (MESH) 5. Obstetrics and Gynecology Department, Hospital (MESH) 6. Nursing Service, Hospital (MESH) 7. Maternal-Child Health Centers (MESH) 8. Ambulatory health center (MESH) 9. Maternity hospitals (MESH) 10. "Institutional childbirth" 11. "Institutional delivery"
Keywords for childbirth	1. Parturition (MESH) 2. delivery, obstetric (MESH) 3. labor, obstetric (MESH) 4. "Obstetric care" 5. Postnatal Care (MESH) 6. Perinatal care (MESH) 7. Maternal health services (MESH) 8. Maternal health (MESH) 9. Maternal-Child Nursing (MESH) 10. Women's health services (MESH) 11. Obstetric nursing (MESH) 12. Prenatal care (MESH) 13. Intrapartum 14. Intra-partum 15. Postpartum 16. Post-partum 17. Intranatal

Keywords for Arab countries	1. Arabs (MESH) 2. Middle East (MESH) 3. Jordan 4. Palestine 5. Palestinian Authority 6. State of Palestine 7. Syria 8. Lebanon (MESH) 9. Morocco (MESH) 10. Mauritania 11. Algeria 12. Tunisia 13. Libya 14. Sudan (MESH) 15. Somalia 16. Egypt (MESH) 17. Saudi Arabia (MESH) 18. Yemen (MESH) 19. Oman (MESH) 20. Qatar (MESH) 21. Bahrain, 22. Kuwait, 23. Comoros (MESH) 24. Iraq (MESH) 25. Djibouti (MESH) 26. United Arab Emirates (MESH)

2.2 Study Selection and Inclusion/Exclusion Criteria

The inclusion criteria included studies that satisfied the following:

1. Were conducted in any of Arab Countries (Jordan, Palestine, Syria, Lebanon, Morocco, Mauritania, Algeria, Tunisia, Libya, Sudan, Somalia, Egypt, Saudi Arabia, Yemen, Oman, Qatar, Bahrain, Kuwait, the Comoros Islands, Iraq, Djibouti, and the United Arab Emirates),

2. Have either cohort or cross-sectional study designs,
3. Were related to experiences of mistreatment reported by women or observed by trained professionals during labor and delivery in a health facility from health workers,
4. Have a population that includes women in the reproductive age, giving or gave birth in a health facility in Arab countries, and who experienced any type of mistreatment during childbirth or mistreatment related to any of the following typology: "physical abuse, verbal abuse, sexual abuse, stigma and discrimination, failure to meet professional standards of care, the poor rapport between women and providers, and health system conditions and constraints";
5. Were related to improving birth outcomes, or effective communication between women and healthcare providers, or had a positive/negative birth experience, or birth care.

Meanwhile, studies were excluded from the review based on the following exclusion criteria which consisted of studies that:

1. Were conducted in non-Arab countries,
2. Have qualitative, experimental, interventional or randomized controlled trial study designs,
3. Were irrelevant to mistreatment of women during childbirth,

4. Have a population that is not women in the reproductive age giving birth in a health facility,
5. Were related to mistreatment due to domestic violence;
6. Were related to mistreatment in any place other than a health facility.
7. That have abstracts only, conferences or reports.

The retrieved articles were downloaded onto the Covidence software for titles and abstracts screening, accordingly, the articles that met the inclusion criteria were included in the review.

Two reviewers independently screened the studies' titles and abstracts for inclusion. Full-text screening was also done by two reviewers independently using the same inclusion and exclusion criteria above.

Conflicts emerged during the title, abstract and full text screenings were resolved through consensus. In case the consensus was not reached, both reviewers consulted the supervisor who made the ultimate decision. The conflicts that emerged during the full text screening were mainly due to the reason of the exclusion; either the study topic was not related to mistreatment or was not a cross-sectional or cohort study.

After concluding the full text screening, the reference lists for the final included studies were then hand-searched in order to identify any other

relevant studies. The newly found relevant articles were added again to Covidence for title and abstract and full-text screenings.

2.3 Data Extraction

The data extraction sheet was built under the supervision of the supervisor and was piloted and agreed upon by the review team (i.e. supervisor and co-supervisor), which included the data needed to conduct the analysis.

The extracted information included the names of the authors, journals, the publication year, the study title, the aim of the study, the study design, country, inclusion/exclusion criteria, sample size, method of data collection, the main and secondary outcomes, outcome measurements, and the results of main and secondary outcomes. This data extraction was also conducted by the two reviewers independently; while conflicts were resolved through consensus.

During the data extraction, two authors were contacted for the purpose of obtaining further information concerning the tools that were used to collect data in their studies, since the information was missing from their studies. However, both authors did not respond to any of the sent eqnuiries.

2.4 Risk of Bias (Quality) Assessment

The two reviewers independently assessed the risk of bias using the 10-item tool to assess the risk of bias in prevalence studies developed by Hoy et al. (133). This tool was chosen because it was developed for prevalence studies based on an extensive literature review to identify relevant items followed by an expert consensus exercising. In addition, the tool was found to be user-friendly and demonstrated high interrater agreement (133).

The risk of bias tool consisted of 10 items divided into two main parts as follows:

The first part of the risk of bias involved assessing the external validity through the following four items. Three items addressing the domain of selection bias (i.e. representativeness of the target population, representativeness of the sample frame, and determination whether random selection was used to select the sample or census was undertaken). Also, one item addressing the domain of non-response bias (i.e. the response rate was more than 75% or the analysis showed that there was no significant difference between responders and non-responders in terms of demographic characteristics).

As for the second part of the risk of bias tool involved assessing the internal validity through the following six items. Five items addressing the domain of measurement bias (i.e. data were collected directly from the subjects, acceptable case definition used, reliability and validity, same mode of data collection used for all subjects, the shortest prevalence period for the parameter of interest was appropriate). In addition to one item addressing bias related to analysis (i.e. appropriate numerator and denominator for the parameter of interest).

In addition to the above, there was a summary item for the overall risk of study bias for all the 10 items.

Judgements were made by the two reviewers independently using the options low risk (which means yes) and high risk (which means no), and in the case the answer was not clear or not reported in the study, the reviewers chose the high-risk option.

The summary item on the overall risk of bias for each study was calculated by giving one point to the high risk answer. If the study got 0-3 points then the overall risk of bias was considered low. If the study received 4-6 or 7-10 points, the overall risk of bias was considered moderate or high

respectively. Disagreements were resolved between the two reviewers through consensus.

2.5 Data Synthesis

A flow chart was used to show the number of studies remaining at each stage of the selection process. The following will show the data synthesis for the narrative data.

2.5.1 Narrative Synthesis

A narrative and descriptive summary tables of the findings were provided for the included studies structured around articles' general data, the terminology used, the measurement tools used, and the types used.

2.5.2 Statistical Analysis

The analysis was conducted based on the evidence-based typology developed by Bohren et al. (6) as a guide to try to estimate the prevalence of mistreatment of women throughout the birthing process in health facilities in Arab countries.

Where available, the combined prevalence was calculated as the average of the calculated or reported prevalence for all outcomes of interest within each sub-category. While, the calculated prevalence was calculated as the

average prevalence of all the items included within the outcome of interest.

However, the prevalence that was reported in the negative direction was reversed in the calculations to match with the majority of the findings that were reported in the positive direction.

CHAPTER 3: RESULTS

3.1 Search Findings

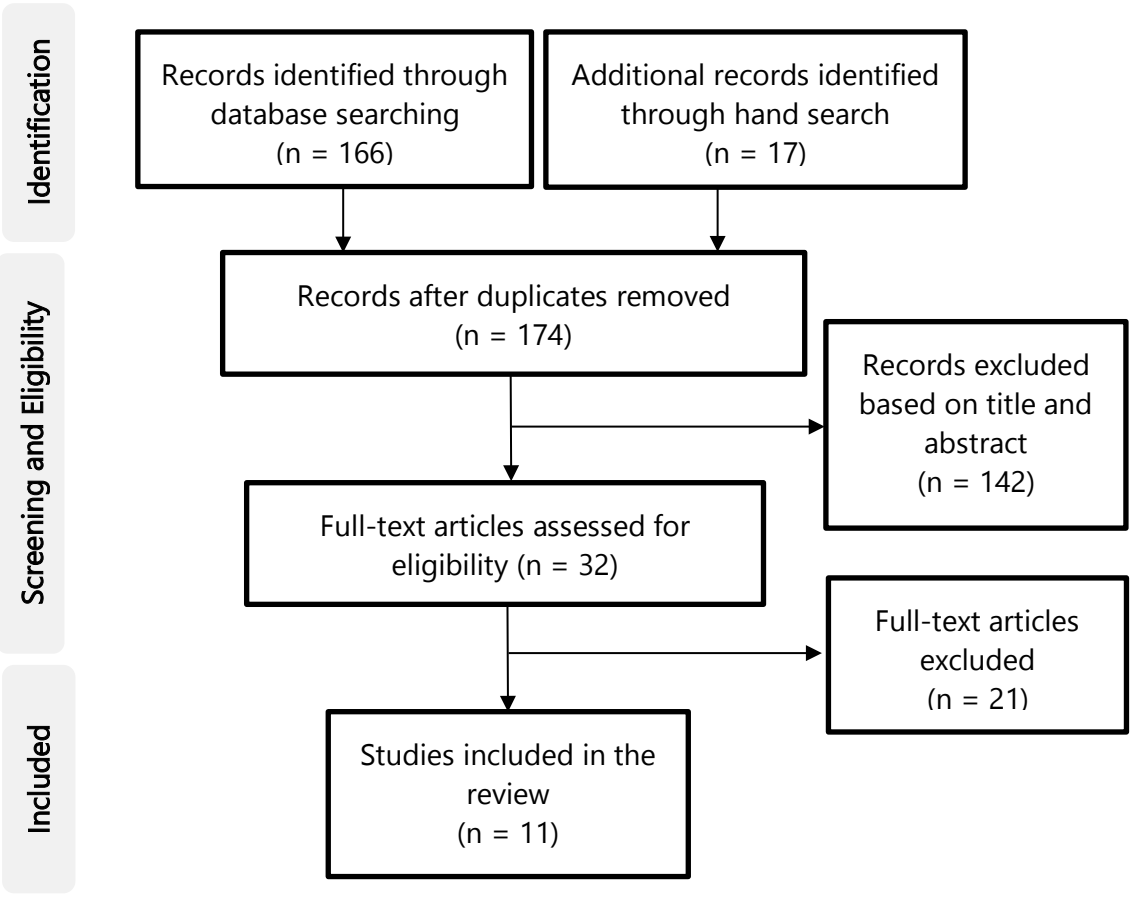
The database search resulted in 166 studies with 7 duplicated studies, giving a total of 159 studies that were downloaded via the Covidence Software. Using the same software, the title and abstract screening yielded 25 studies that were used to carry out the full-text screening; resulting in seven included studies as a first step.

Reference lists was hand searched for the seven included studies and found 17 more related studies: two of which were repeated, another two were reports and 13 studies were added again to the Covidence Software for title and abstract and full-text screenings, which in return generated an additional four studies to include in the final review.

The final number of the included studies was 11 (134-144). **Figure 1** presents the flow chart of the included studies. The complete data extraction table is presented in **ANNEX 3**. The list of full text excluded with reasons is presented in **ANNEX 4**.

For ease of reading the results, we generally refer to the final number of the included studies as the 11 studies unless noted otherwise.

Figure 1: Flowchart of Study Selection



3.2 General Characteristics of the Included Studies

Of the 11 studies, five (45.5%) had a contribution of up to two authors, five (45.5%) had a contribution of three to five authors, and one (9%) had a contribution of more than five authors. The affiliation of the first author for eight of these studies (72.7%) was an Arabic institution, while the affiliation for the other three (27.3%) was a non-Arabic institution (two in Sweden and one in Switzerland).

The majority of the 11 studies (81.8%) were published in journals specific to reproduction health, obstetrics and gynecology, birth and nursing, while 18.2% were published in general journals such as general health or tropical medicine. All the 11 studies were published in ten different journals, while two of the studies were published in the same Journal "Reproductive Health Matters".

None of the 11 studies were published before 2005; while, six of these studies (54.6%) were published between the year 2005 and 2014, the remaining five (45.4%) were published between the year 2015 and 2020. Moreover, the study title for eight of the 11 studies (72.7%) was related to mistreatment, while the remaining three studies (27.3%) had some types of mistreatment mentioned or secondary outcomes that were useful for the analysis, despite the title showing no relation to mistreatment.

Regarding the aim of the study, the majority of the 11 studies (63.6%) have aims that were directly related to mistreatment, while the aim for 3 studies (27.3%) was indirectly related to mistreatment. For example, women's preferred location of childbirth in case of future pregnancy, trends in postpartum care, and women's preferences for the type of birth attendant and place of delivery. Moreover, one study (9.1%) was not related to mistreatment, but it was included in this review, because the abstract has

considered the women's perception of their hospital stay. The general characteristics of the included studies are shown in **Table 2**.

Table 2: General characteristics of the 11 Studies

	No. of Studies	Percentage
Total Number of Authors		
Up to 2	5	45.5%
3-5	5	45.5%
More than 5	1	9%
Affiliation of First Author		
Arabic Institution	8	72.7%
Non-Arabic Institution	3	27.3%
Journal Type		
General	2	18.2%
Specialized	9	81.8%
Publication Year		
Less than 2005	0	0%
2005-2009	2	18.2%
2010-2014	4	36.4%
2015-2019	4	36.4%
2020	1	9%
Study Title		
Related to Mistreatment	8	72.7%
Not Related to Mistreatment	3	27.3%
Study Aim		
Directly related to Mistreatment	7	63.6%
Indirectly related to Mistreatment	3	27.3%
Not related to mistreatment	1	9.1%

3.3 Methodological Characteristics of the 11 Studies

The methodological characteristics of the 11 studies are described in **Table 3**; this section will narrate the summary results of this review:

3.3.1 The Study Design

The 11 studies (100%) had a cross-sectional study design, while a cohort study design was not found in our search. Nine (81.8%) were conducted at a national level, while two (18.2%) were multi-country studies - one was conducted at a regional level that included Egypt, Syria and Lebanon, and the other was conducted at an international level that included Egypt and Bangladesh.

3.3.2 The Countries of the Studies

None of the 11 studies were conducted in Palestine, Mauritania, Algeria, Tunisia, Libya, Sudan, Somalia, Saudi Arabia, Oman, Qatar, Bahrain, Kuwait, Comoros, Djibouti and United Arab Emirates. Yet, four of the 11 studies (36.4%) were conducted in Egypt - two at a national level, and two were parts of multi-country studies. Two studies were conducted in Jordan, Syria and Yemen with a total of six. However, one of the two studies that were conducted in Syria was part of a multi-country study. One study was conducted in Iraq, Morocco, and Lebanon, taking into consideration that Lebanon was part of the regional study.

3.3.3 The Setting of the Study

The majority of the 11 studies (63.3%) were conducted in health facilities either in hospitals or maternal and child health clinics. Specifically, four of

these studies were conducted at hospitals, two were conducted in clinics and one was conducted in both hospital and clinic. The rest of the studies (36.4%) were conducted in the community.

3.3.4 The Year the Studies were Conducted

The year the 11 studies were conducted varied between 2000 and 2019; despite that, more than half of the studies (54.5%) were conducted between 2010 and 2019, and two studies (18.2%) did not report anything with regards to the year that they were conducted during.

Table 3: Methodological Characteristics of the 11 Studies

	No. of Studies	Percentage
Study Design		
Cross-sectional	11	100%
Cohort	0	0%
Study Level		
National	9	81.8%
Regional	1	9.1%
International	1	9.1%
Country *		
Egypt	4	36.4%
Jordan	2	18.2%
Iraq	1	9.1%
Lebanon	1	9.1%
Morocco	1	9.1%
Syria	2	18.2%
Yemen	2	18.2%
Other Arab countries	0	0%
Setting		
Community/Household Survey	4	36.4%

Facility-based	7	63.6%
The Year the study was conducted		
2000-2004	1	9%
2005-2009	2	18.2%
2010-2014	4	36.4%
2015-2019	2	18.2%
2020	0	0%
Not Reported	2	18.2%
Method of data collection		
Interviewer-administered questionnaire	10	90.9%
Self-administered questionnaire	1	9.1%
Number of participants		
Less than 250	3	27.3%
250-499	3	27.3%
500-749	1	9.1%
750-999	1	9.1%
More than 1000	3	27.3%
Response rate		
More than 80%	8	72.7%
Not reported	3	27.3%

** Adds to more than 100% because the multi-country study was counted in more than one option*

3.3.5 Method of Data Collection

The method of data collection for ten of the 11 studies (90.9%) was interviewer-administered questionnaire where the fieldworkers were trained to administer the questionnaire, while the method of only one study (9.1%) was self-administered questionnaire, where they included only women who were literate.

3.3.6 Number of Participants

The number of participants who participated in the 11 studies varied widely between less than 250 and more than 1000; six of the 11 studies (54.5%) have had the number of participants leading up to 499, while the rest (45.5%) had 500 participants and more.

It is worth mentioning that the number of participants was not related to the setting of the study. For example, there were two household surveys and one clinic-based study that had the number of participants less than 250. Another two hospital-based and one clinic-based studies had the number of participants between 250 and 499. In addition, one community-based and one hospital-based studies had 500 and 973 participants respectively. While another two facility-based and one household survey had more than 1000 participants.

3.3.7 The Response Rate

The response rate for the majority of the studies was generally high, either reported directly in the study or was calculated indirectly from the given number of participants and the required sample size. The response rate was only reported/calculated in eight of the studies (72.7%) and showed a value of more than 80%; seven out of the eight studies had values of response rate exceeding 97% which were in Morocco, Yemen, Iraq, Egypt

and the regional study, while the remaining one has a response rate of 83% which was conducted in Jordan. Three of the 11 studies (27.3%) did not report or provided sufficient data to allow for calculation for the response rate - two of these studies were community/household surveys in Egypt and Syria, and one was a clinic-based study conducted in Jordan.

3.3.8 The Inclusion Criteria

The inclusion criteria varied widely between the 11 studies in terms of when and where to conduct the interview, and who to conduct the interview with. However, it can be divided into three main categories based on the timing of measuring the outcomes:

- First, women who were at postpartum wards before they leave the hospital.
- Second, women who have a healthy newborn up to one year after delivery in clinics.
- Third, women with childbirth experience without specifying the period.

For the first main category, four of the 11 studies (36.4%) measured the outcomes at the time of discharge from the hospital. However, these four studies varied between the eligibility criteria for participants; one of the four studies included in general women who gave birth and were at

postpartum wards. While another study included women who gave birth, were at postpartum wards and were more than eighteen years old. The third, included women who had an uncomplicated delivery, a complicated delivery with cesarean section, or complicated delivery without cesarean section. Whereas the fourth included women who had given birth to a single live birth at the public section of Assiut University Hospital.

For the second main category, one study (9.1%) included women whose most recent live birth in the five years prior to the Demographic and Health Survey date and aged between 15 and 49 years old where they asked the women about their birth experience within her past year. Another study (9.1%) included women having at least one birth experience (i.e. a vaginal delivery) within her past year in specific public health institutions. Another study (9.1%) included women of recent delivery of a healthy baby who was less than 3 months old. While another study (9.1%) included women who were seven weeks or more postpartum and had a live term baby. Finally, one study (9.1%) included women who were literate, have a healthy newborn baby, by normal vaginal delivery and assisted delivery such as forceps and vacuum when they went to maternal and child health centers.

For the third main category, two of the 11 studies (18.2%) reported only the inclusion of women with childbirth experience without determining more details.

3.3.9 The Exclusion Criteria

The exclusion criteria was reported in five of the 11 studies (45.5%), despite that, it varied widely among those five studies as follows:

- One study excluded women who were classified as high-risk by healthcare providers upon arrival to hospital, those who suffered from intrauterine fetal death and where below eighteen years old.
- A second study excluded women who delivered in private hospital, had psychological problems or were not interested in participation.
- While the third study excluded women who gave birth to a preterm baby or had a still birth.
- The fourth and fifth studies excluded women who delivered outside the hospital; however, one of these two studies excluded mothers with multiple births, stillbirths or neonatal deaths or women who delivered by cesarean section.

3.4 Findings for the Terminology and Tools used in Measuring Mistreatment

There are currently multiple phrases being used to express mistreatment among countries around the world, such as the widely identified terms: "disrespectful care", "disrespect and abuse" and "obstetric violence". Searching within the 11 studies did not yield any of the terms previously mentioned. Indirect terms were used that reflects on mistreatment. These terms fall under the following main categories: (1) Women's Satisfaction, (2) Women's Perception of Control/Authority during Childbirth, (3) Postpartum Care, (4) Mothers' experiences of care related to client-provider interaction, (5) Mother-infant proximity, (6) Other terminologies, (7) Irrelevant terminologies.

Below describes in more detail each of the main categories identified along with the tools that were used in each of the conducted studies.

3.4.1 Women's Satisfaction

3.4.1.1 Main Outcomes

Of the 11 studies, six (54.5%) used the term "women's satisfaction" as the main outcome (134, 138, 141-144). This satisfaction was measured differently in each of these six studies. For example, "dissatisfaction with

intrapartum care", "satisfaction with childbirth experience", "overall maternal satisfaction with delivery services", "mother's satisfaction with delivery care", and "overall satisfaction of women with the communication of midwives and physicians during labor and birth".

Additionally, there was no clear conceptual framework used for defining satisfaction, while each one of the six studies operationalized it differently. Consequently, each study has provided its own measurement tool for estimating the "satisfaction" as stipulated below:

"Dissatisfaction with intrapartum care" was measured using the "Satisfaction with Childbirth Care Scale (SCCS)". It is a brief 8-item questionnaire that included four items about "interpersonal care by the midwife/doctor who provided most of the care during labor" and four items about "women's satisfaction with the information they received and involvement in decision-making". This tool was translated into Arabic and back-translated to ensure proper translation, then assessed for face and content validity by a panel of experts to ensure clarity, relevance, comprehensiveness, understandability and ease of administration, after that the scale was piloted (141).

"Satisfaction with childbirth experience" was measured with the "Satisfaction with Childbirth Experience (SWCBE). It is a 32-item questionnaire that covers different aspects of the childbirth experience. It includes items that were concerned with perception of quality of care during childbirth, such as, the way the health-care team treated the woman, frequency of vaginal examinations, limitation of mobility during childbirth, sharing the labor room with other laboring women, inability to see the doctor when needed. In addition to items concerning the woman herself, such as feeling safe during the childbirth, feeling comfortable and satisfied with the care received during childbirth, and satisfaction with labor pain management. Also, items related to mother-infant proximity such as the ability to hold the baby when wanted, and the baby received the needed care after birth. This scale constitutes a part of the tool that was developed for self-administration based on an extensive review for the literature. Thereafter, a panel of three experts assessed the content validity and this tool was also piloted (142).

"Mothers' overall satisfaction with delivery care" was measured indirectly by asking the mother the following questions: "thinking about your experience, are you going to recommend this facility for delivery to your family (relatives) or friends?" and "thinking about your experience, if you

were to have another baby, would you like to deliver in this hospital again?". These questions were part of a semi-structured questionnaire that was developed and piloted (144).

"Overall maternal satisfaction with delivery services at the hospital" was measured using 17 questions adapted from the Donabedian Quality Assessment Framework (143). Four of these questions measured "satisfaction with health workers' attitude" through asking the following set of questions: "were the patients welcomed at admission prior to arrival to the ward, if the medical team identified himself to the patient (woman), if the woman was badly handled "i.e. bad medical team behavior", about the courtesy, and full attention and helpfulness of the medical team towards patients". Five questions measured "satisfaction with health workers' communication skills" through asking yes/no questions about: "explanation of the treatment plan for delivery to mothers, encouragement to ask about the plan of treatment, encouragement to ask about discharge time, informing mothers about fasting before the operation, and giving instruction of care before discharge". A further six questions measured "maternal satisfaction related to facilities available at the hospital" through asking about: "breadth of the patient's or labor wardroom, quietness in the patient's room, cleanliness of the patient's room, hand hygiene of the

medical team, bathroom facilities/cleanliness, and quality of food". Additionally, two questions measured the "general assessment of the childbirth process" through asking about: "satisfaction with the admission process" and "general assessment of the childbirth process". It's worth noting that this study has reported only on adapting the questionnaire without reporting on translation or testing/piloting (143).

"Overall satisfaction of women with communication of midwives and physicians during labor and birth" was measured using a questionnaire developed by the author herself which included 28 items (16 of them related to verbal and 12 for non-verbal) communication of physicians and midwives in the delivery room; however, there was no reporting on testing/piloting the tool (140).

"Women's satisfaction" was measured with the "Mackey Childbirth Satisfaction Rating Scale (MCSRS)", which is a 34-item scale that covers six different dimensions related to self, partner, baby, nurse/midwife, physician and general rating scale. This scale was adapted to 31-item scale, translated and used in Arabic in a previous study, however, additional adaptations related to the wording in Arabic were made for this study. The scale was pilot tested. Internal consistency and reliability coefficients were

calculated for the adapted scale using data from a previous study conducted in Lebanon (138).

3.4.1.2 Secondary Outcomes

Women's satisfaction was measured as a secondary outcome in three of the 11 studies (27.3%) with different aspects and operationalization as well. The *"satisfaction with different aspects of quality of care"* was measured using 14 items that cover several dimensions; one question for the accessibility, five questions for the interpersonal aspect of care (i.e. "privacy maintained during care, encouragement at delivery, the way doctor treated them, the way nurses treated them, the way workers treated them"), another three questions related to the technical aspect of care (i.e. "availability of medical facilities, competency of care provider, health advice"), in addition to three questions pertaining the physical environment (i.e. "cleanliness, availability of beds, sanitary facilities"), and finally two questions related to the outcome of care (i.e. "health condition of mothers, and health condition of the newborn"). These questions were part of a semi-structured questionnaire that was developed and pilot-tested (144).

"General satisfaction with care during labor" was measured in a separate single question with three response types (i.e. yes, no, or partially). This

question was part of a questionnaire that was developed by the author after a massive review of the literature (134).

Finally, *"women's satisfaction with intrapartum care"* was measured through a closed question as follows: "Were you satisfied with the care you received during the intrapartum period?". This question was part of a structured questionnaire that was designed and implemented in Arabic and tested (135).

3.4.2 Women's Perception of Control/Authority during Childbirth

Of the 11 studies, three (27.3%) used the term "women's perception of control/authority during childbirth" as a main outcome. The authors also did not utilize clear conceptual framework for this term as well, however, they determined operational definition that differed in each of the three studies.

The "perceived control during childbirth experience" was measured using "women's Perception of Control during Childbirth (PCCB)" which is a 23-item scale that included items related to feeling safe during labor, coping with labor, feeling helpless during labor and birth, feeling a responsibility during labor and birth, being able to predict what would happen during labor and delivery, etc. This was the other part of the tool that was

developed by the author for self-administration based on an extensive review for the literature. Thereafter, a panel of three experts assessed the content validity and the tool was pilot tested (142).

"Women's perception of control" was measured using "Labor Agentry Scale" which is a 29-item scale that was shortened to a 10-item version and measured the personal control during childbirth. The shortened version was translated to Arabic and back-translated into English to ensure accurate translation and was pilot tested (138).

"Women's perceived authority at birth" and "women's authority during childbirth" were measured through asking the question: "Did you feel that you were the authority at birth? Yes/No and Please explain". This question was part of a questionnaire that was translated and tested (139, 140).

3.4.3 Postpartum Care

One study out of the 11 studies (9.1%) used the term postpartum care. The author used a clarified conceptual definition for the term "postpartum care" which has been defined as: "the care received by women from within the first hour after birth until 41 days after birth" and operationalized it using a "Demographic and Health Survey (DHS)" that was modified to

include information on past-partum and post-natal care for women delivering in health facilities (137).

The questions used in this survey covered the timing of the occurrence of care, and the person who provided the care, by asking the following questions: “after your child was born, did a health professional/ medical person check on your health? If yes, who checked you at that time?”. This survey was translated, adapted and validated since it was a nationally-representative household survey (137).

3.4.4 Mothers’ Experiences of Care

One study out of the 11 studies (9.1%) used the term “mothers’ experience of care related to client-provider interaction”. This term was measured through “the way the doctor treated the patient, the way the nurse treated the patient, whether privacy was maintained, if the provider listened to the patients questions, if the provider explained her health status, and if the mother was informed about the baby's condition”. This was part of a semi-structured questionnaire that was developed and pilot-tested (144).

3.4.5 Mother-infant Proximity

One study out of the 11 studies (9.1%) used the term “mother-infant proximity” that was measured by asking whether women were able to

remain in close contact with the infant directly following birth “Where was the child put immediately within the first few minutes after birth?, with the following answer options: Skin-to-skin wrapped/dressed in arms, separate bed/elsewhere near, other place in room but out of contact, separate room/place out of sight”. This outcome was part of a questionnaire that was translated and tested (140).

3.4.6 Other Terminologies

There were other terminologies describing mistreatment that were used and measured in the studies and combined under this heading. As an example, “privacy sensation during hospital stay” (143), “own choice of birth attendance” (140), “presence of birth support/companion” (140, 144), “not talked to any health professional about how they felt about what happened during labor and birth”, and “attendance of anyone that they did not want to be there” (141).

There were no specific indications on how these outcomes were measured, since they were extracted from tables within the studies, however, the questions were straight forward with a response of either “Yes” or “No”. Furthermore, all the questions were parts of the questionnaires that were either developed and tested or translated and tested and mentioned in the previous headings.

3.4.7 Irrelevant Main Outcomes

Three of the 11 studies (27.3%) measured main outcomes that were irrelevant to the topic of mistreatment, however, these studies were included in this review because they had secondary outcomes that relates to the topic of mistreatment (135, 136, 140).

The first mainly assessed the financial barriers that were still faced by the households since the implementation of the free delivery and cesarean policy (FDCP) (136). The second mainly examined the previous childbirth location and preference of future location of childbirth (140), and the third described mainly the preferred place of delivery (health facility or home) and the preferred type of birth attendant (doctor vs midwife) (135).

One of these three studies had a secondary outcome of "women's perceptions of health services", and while the analysis was being carried out, it was found that there was no indication in the study of how the authors measured the outcome, and there was no reported prevalence in the results section; all what was found in the discussion section was that the majority of the interviewed women were satisfied with the quality of care provided under the FCDP, and they would recommend the hospital to others (136).

Furthermore, 98% of the interviewees in this study were women themselves, but in the remaining cases, the interviews were conducted with the husband, or the accompanying person (136). The author of this article was contacted for more details about the measurements, but no response was received, and hence the study was not included as part of the analysis.

3.4.8 Summary

There was diversity in the terms used in the 11 studies, and in measuring the aspects of the same term, and each term having its own operational definition. Also, there was no consistency in measuring these terms, which made the comparison between these studies somewhat difficult.

The below points present a general summary for all the tools that were used to measure the outcomes in the 11 studies showing a considerable heterogeneity:

- Four (36.4%) were developed by the authors, and while three of these four were tested/piloted (135, 142, 144), the fourth article did not report on testing/piloting (134).

- Four (36.4%) were translated to Arabic; two of these four were tested/piloted (140, 141), and two of them were adapted and tested/piloted (137, 138).
- One study (9.1%) reported only adaptation without reporting translation or testing/piloting (143).
- One study (9.1%) reported only testing without reporting translation, adaptation, or tool development (139).
- In the last study (9.1%) the authors adapted and tested/piloted a tool that was used in an Arab country (136).

For the purpose of this thesis - despite having only three of the 11 studies directly reporting on validation (137, 141, 142) - it was considered that, both adaption with testing/piloting or development with testing/piloting, as validation as well.

3.5 Findings for the Types Identified in Measuring Mistreatment

3.5.1 Evidence-Based Typologies

This thesis uses the evidence-based typology for mistreatment, which was developed by WHO researchers Bohren and colleagues (145), to guide in analyzing the types found in the 11 studies that were included in the review.

In brief, this evidence-based typology contains seven broad categories with several sub-categories that fall within the broader ones, which are outlined below:

- The first category is “physical abuse” which includes the “use of force and physical restraint”.
- The second category is “sexual abuse”.
- The third category is “verbal abuse” which includes harsh language, threats and blaming.
- The fourth category is “stigma and discrimination including discrimination based on sociodemographic characteristics and medical conditions”.
- The fifth category is the “failure to meet professional standards of care” that includes “lack of informed consent and confidentiality, physical examinations and procedures, neglect and abandonment”.
- The sixth category is “poor rapport between women and providers” including “ineffective communication (such as poor communication and poor staff attitudes), lack of supportive care (such as lack of supportive care from health workers and denial or lack of birth companions), and loss of autonomy (women treated as passive participants during childbirth, denial of food, fluids, or mobility, lack of

respect for women's preferred birth positions and objectification of women)".

- The seventh and final category considers "health system conditions and constraints" which includes "lack of resources (such as physical conditions of facilities, staffing shortages, supply constraints and lack of privacy), lack of policies (such as lack of redress), and facility culture" (145).

ANNEX 5 shows the evidence-based typology of mistreatment in details.

While reviewing the 11 studies, it was expected to find in Arab countries the typology of "physical abuse", "verbal abuse", and "stigma and discrimination". However, the findings were mainly classified within the sixth and seventh categories of the evidence-based typology as presented in **Table 4**.

Within the sixth category - which is poor rapport between women and providers – the outcomes found, fall within the sub-categories of this broader category. For example, the "overall satisfaction of women with communication of midwives and physicians during labor and birth", "satisfaction with health workers' attitude", and "satisfaction with health workers' communication skills" fall into the sub-category of ineffective

communication. On the other hand, “presence of birth support persons” and “presence of companion” fall into the sub-category of lack of supportive care, while, “own choice of birth attendance”, “women’s authority during childbirth”, and “women’s perception of control” fall into the sub-category of loss of autonomy.

Moving to the findings that fall within the seventh category - which is health system conditions and constraints – the outcomes were classified into two sub-categories; lack of resources and lack of policies. As an example, “privacy sensation during hospital stay”, “maternal satisfaction related to facilities available in hospital”, “satisfaction with the technical aspect of care”, and “satisfaction with the physical environment” fall into the sub-category of lack of resources. In addition, “mother-infant proximity” and “satisfaction with the admission process” fall into the sub-category of lack of policies.

It is worth mentioning that Table 4 has several outcomes that are worth pointing out, such as, having some outcomes that were classified under more than one typology; as an example: “women’s satisfaction” and “satisfaction with childbirth experience” could be classified under both the sixth typology and the seventh typology, because the scales that were used to measure both of these outcomes cover several dimensions, and

hence it would be impossible to group them under one typology. In addition, **Table 4** shows that "satisfaction with childbirth experience" was classified under the fifth category in addition to the sixth and seventh categories, because it has one item that was directly related to the physical examinations and procedures sub-category.

3.5.2 Summary

The evidence-based typology of the mistreatment of women during childbirth was used as a guide to analyze the findings of this review. It was apparent that almost all the findings fall within the sixth and seventh category of the evidence-based typology. Some outcomes were classified under more than one category, however, the fifth category only appeared once due to one item that was included as part of a large scale.

3.6 Findings for estimating the prevalence of mistreatment

This thesis aims to present prevalence estimates of mistreatment of women throughout the birthing process in health facilities in Arab countries. However, this was not possible due to high heterogeneity in the 11 studies, including the different operational definitions, tools, different inclusion/exclusion criteria and different terms measured. Therefore, it was determined that the best way to report on these findings was through presenting the results for each measured outcome as shown in **Table 4**.

Table 4: Summary Findings for the Types Identified, the Findings of the Studies and Combined Prevalence

WHO Typology	Outcome of Interest	Findings	Reported/Calculated Prevalence	Combined prevalence
Typology No. Six: "Poor rapport between women and providers"				
"Ineffective communication"	"Overall satisfaction of women with communication of midwives and physicians during labor and birth" (134)	58.4% of women were generally satisfied with communication of midwives and physicians during their labor and delivery N=1196	**58.4%** of women were generally satisfied with communication of midwives and physicians during their labor and delivery	**58.15% of women were satisfied with the communication throughout the birthing process**
	Satisfaction with health workers' attitude (143)	• Welcoming at admission prior to arrival to the ward (Yes 78.25%), • If the medical team identified himself to the patient (Yes 23.75%), • Badly handling of the patient "bad medical team behavior" (Yes 21.25%), • Courtesy, full attention and helpfulness of the medical team towards patients (Always 41.5%, usually 48.5%, sometimes 10%, never 0) N=400	Assume always and usually=Yes Calculated prevalence is **67.7%** of women were satisfied with health workers' attitude	

	Satisfaction with health workers' communication skills (143)	• Explanation of the treatment plan for delivery to mothers (yes 61.25%), • Encouragement to ask about plan of treatment (yes 26.8%), • Encouragement to ask about discharge time (yes 11.25%), • Tell mothers about fasting before operation (yes 94.2%), • Give instruction of care before discharge (yes 92.5%) N=400	Calculated prevalence is **57.2%** of women were satisfied with the health workers' communication skills	
	"Mothers' experience of care related to client-provider interaction" (144)	• "The way doctor treated her" (Excellent/good 301, satisfactory 56, bad/very bad 78), • "The way nurse treated her" (Excellent/good 349, satisfactory 39, bad/very bad 47), • Privacy maintained (Yes 374 No 61), • "Provider listened to her questions" (Yes 224 No 31 didn't ask 180),	Assume excellent/ good=Yes Calculated prevalence is **66.5%** of women having positive experience of care related to client provider interaction	

		• "Provider explained her health status" (Yes 310, No 125), • "Mother informed about baby's condition" (Yes 178 No 257) N= 435		
	Satisfaction with "interpersonal aspect of care" (144)	• "Privacy maintained during care" (Total satisfied 88.7%), • "Encouragement at delivery" (Total satisfied 82%), • "The way doctor treated them" (Total satisfied 69.2%), • "The way nurses treated them" (Total satisfied 77.7%), • "The way workers treated them" (Total satisfied 56.1%) N=435	Calculated Prevalence is **74.7%** of women were satisfied with interpersonal aspect of care	
	Dissatisfaction with intrapartum care (141)	X=22.40; SD +- 4.06; range 12-31 Findings indicated that the majority of women were not satisfied with intrapartum care. Prevalence 75.6% of women were dissatisfied with intrapartum care	Calculated prevalence is **24.4%** of women were satisfied with intrapartum care	

		N=320		
	Satisfaction with childbirth experience (142)	X=111.6 SD +- 15.5; range 57-153 Women were not satisfied with their childbirth experience	No prevalence	
	"Not talked to any health professional about how they felt about what happened during labor and birth" (141)	Numbers were not clear to calculate the prevalence	No prevalence	
	Women's satisfaction (138)	X=133.3; range 45-155 High level of satisfaction	No prevalence	
"Lack of supportive care"	"Presence of birth support persons" (140)	16% of women had birth support persons presented	**16%** of women had birth support persons presented	**10.1% of women had supportive care throughout the birthing process**
	"Presence of companion" (144)	4.14% of women has companion presented with them N=435	**4.14%** of women has companion presented with them	
	Women's satisfaction (138)	X=133.3; range 45-155 High level of satisfaction	No prevalence	
"Loss of autonomy"	"Women's authority during childbirth" (140)	36% of women had authority during childbirth in institutions N=69	**36%** of women had authority during childbirth	**35.5% of women had autonomy throughout the birthing**

	"Women's perceived authority at birth" (139)	35% perceived own authority during childbirth in institutions N=68	**35%** perceived own authority during childbirth in institutions	**process**
	Women's satisfaction (138)	X=133.3; range 45-155 High level of satisfaction	No prevalence	
	"Women's perception of control" (138)	X=44.9; range 10-70 Average level of perceived control in labor	No prevalence	
	"Perceived control during childbirth experience" (142)	X=81.8 SD +- 9.4; range 58-107 Women perceived that they had little control over their childbirth experience	No prevalence	
	Satisfaction with childbirth experience (142)	X=111.6 SD +- 15.5; range 57-153 Women were not satisfied with their childbirth experience	No prevalence	
	"Own choice of birth attendance" (140)	72.5% of women had their own choice of birth attendance/location (there is no prevalence for own choice of birth attendance only) N=69	No prevalence	
Typology No. Seven: "Health system conditions and constraints"				
"Lack of resources"	Privacy sensation during hospital stay (143)	42.7% were least satisfied with privacy sensation during hospital stay N=400	**57.3%** were satisfied with privacy sensation during hospital stay	**73.7% of women were satisfied with the resources throughout the**

	Maternal satisfaction related to facilities available in hospital (143)	• Breadth of the patient's or labor wardroom (Excellent 21.5%, very good 45%, good 0, suitable 33.5%, poor 0), • Quietness in the patient's room (Excellent 0, very good 41.5%, good 55.5%, suitable 3%, poor 0), • Cleanliness of the patient's room (Excellent 0, very good 31.25%, good 58%, suitable 10.75%, poor 0), • Hand hygiene of the medical team (Excellent 0, very good 28.75%, good 50.75%, suitable 20.5%, poor 0), • Bathroom facilities and cleanliness (Excellent 3.2%, very good 0, good 57%, suitable 39.8%, poor 0), • Quality of food (No food 7%, excellent 0, very good 6.5%, good 38.25%, suitable 48.25%, poor 0) N=400	Assume excellent, very good and good=Yes Calculated prevalence is **72.8%** of women were satisfied regarding facilities available in hospital	**birthing process**

	Satisfaction with "technical aspect of care" (144)	• "Availability of medical facilities" (Total satisfied 62.9%), • "Competency of care provider" (Total satisfied 92%), • Health advice (Total satisfied 11.7%) N=435	Calculated prevalence is **55.5%** of women were satisfied with technical aspect of care	
	"Satisfaction with physical environment" (144)	• Cleanliness (Total satisfied 93.6%), • Availability of beds (Total satisfied 95.2%), • Sanitary facilities (Total satisfied 78.2%) N=435	Calculated prevalence is **89%** of women were satisfied with physical environment	
	Satisfaction with "outcome of care" (144)	• "Health condition of mothers" (Total satisfied 86.4%), • "Health condition of the newborn" (Total satisfied 90.3%) N=435	Calculated prevalence is **88.4%** of women were satisfied with outcome of care	
	Postpartum care (137)	81.7% in 2005 and 89.8% in 2008 of women received postpartum care after delivery in the hospital N=9845 in 2005 and N=7896 in 2008	**85.75%** of women received postpartum care after delivery in the hospital	
	"Mothers' overall	63% of women were satisfied with the	**63%** of women were satisfied with the	

	satisfaction with delivery care" (144)	quality of delivery care they received at the hospital N=435	quality of delivery care they received at the hospital	
	"General satisfaction with care during labor" (134)	78% of women were generally satisfied with care during labor N=1196	**78%** of women were generally satisfied with care during labor	
	Women's satisfaction with intrapartum care (135)	Most women (98.7%) reported that they were satisfied with the care they received, but without distinguishing between women who gave birth in a health facility (78.8%) and women who gave birth at home (20.4%).	No prevalence	
	Satisfaction with childbirth experience (142)	X=111.6 SD +- 15.5; range 57-153 Women were not satisfied with their childbirth experience	No prevalence	
	Attendance of anyone that they didn't want to be there (141)	Numbers were not clear to calculate the prevalence	No prevalence	
	Women's satisfaction (138)	X=133.3; range 45-155 High level of satisfaction	No prevalence	
"Lack of policies"	Mother-infant proximity (140)	• "Skin-to-skin" (0), • "Wrapped/dressed in arms" (15%, 10/66), • "Separate	Assume "skin-to-skin", "wrapped/ dressed in arms", "separate bed/ elsewhere near" =	**68.8% of women were satisfied with the policies throughout the**

		bed/elsewhere near" (39.4%, 26/66), • "Other place in room but out of contact" (36.4% , 24/66), • "Separate room/place out of sight" (9%, 6/66) N=66	Yes Calculated prevalence is **54.4%** of women had close contact with their newborn after delivery	**birthing process**
	Satisfaction with the admission process (143)	73.5% were satisfied with the admission process N=400	**73.5%** were satisfied with the admission process	
	General assessment of the childbirth process (143)	Excellent 0, very good 23%, good 55.5%, suitable 16.25%, poor 5.25% N=400	Assume excellent, very good and good= Yes Calculated prevalence is **78.5%** of women were satisfied with the childbirth process	
	Satisfaction with childbirth experience (142)	X=111.6 SD +- 15.5; range 57-153 Women were not satisfied with their childbirth experience	No prevalence	
	Women's satisfaction (138)	X=133.3; range 45-155 High level of satisfaction	No prevalence	
Typology No. Five: "Failure to meet professional standards"				
Physical examinations and procedures	Satisfaction with childbirth experience (142)	X=111.6 SD +- 15.5; range 57-153 Women were not satisfied with their childbirth experience	No prevalence	

The results of the outcomes that were classified under the sub-category of ineffective communication showed that 58.4% of women were generally satisfied with communication of midwives and physicians during their labor and birth. A high percentage of women stated that the medical team welcomed them at admission, had good behavior, and gave them full attention, however, only 23.75% of women stated that the medical team identified himself for them.

Moreover, low percentage of women had previous explanation about the plan of treatment for delivery, or had been encouraged to ask about plan of treatment, and had been encouraged to ask about discharge time, despite that, 94.2% of women were told about fasting before operations and 92.5% of women were given instructions of care before they left the hospital.

In addition, high percentage of women had excellent/good experience of care regarding the client-provider interaction, except for "provider listened to her questions" and "mother informed about baby's condition".

As for the satisfaction with interpersonal aspect of care, women were highly satisfied with all items except for "the way doctor and workers

treated them" whereas, 75.6% of women were dissatisfied with their intrapartum care.

Finally, the findings of "satisfaction with childbirth experience" and "women's satisfaction" were reported as mean score that was interpreted as follows: "women were not satisfied with their childbirth experience" and "women had high level of satisfaction" respectively.

Moving to the lack of supportive care sub-category, very low percentage of women had companion presented with them during childbirth. As for the loss of autonomy; low percentage of women had authority during childbirth in institutions. Two outcomes were reported as mean score, in which women perceived an average level and low level of control in labor and childbirth.

Concerning the lack of resources, 42.7% of women were least satisfied with privacy sensation during their hospital stay. Moreover, high maternal satisfaction was related to room's quietness and cleanliness, and the medical team's hand hygiene, while low maternal satisfaction was related to breadth of the labor room, bathroom facilities and cleanliness, and the quality of the food.

Overall, mothers were highly satisfied with the care provider's competency compared to their poor satisfaction with availability of medical facilities and health advice. Mothers also showed high satisfaction with all items related to physical environment, and outcome of care.

Postpartum care was received by the majority of women after delivery in the hospital. More than half of the women were satisfied with the quality of delivery care they received at the hospital, and the majority of women were generally satisfied with care during labor.

Finally, findings for the lack of policies were concluded as following: no women had skin-to-skin contact with their infants, 15% of the women had their infants wrapped/dressed in arms, and 39.4% had their infants in a separate bed or elsewhere near. Despite that, high percentage of women were satisfied with the admission process and the childbirth process.

This thesis, despite unorthodox method of portraying results, tried to estimate the prevalence for each sub-category of mistreatment regardless of the diversity in terms, tools and inclusion criteria, in order to provide an insight of what will the prevalence be in each of the identified typologies.

Accordingly, the method adopted tried to combine the reported/calculated prevalence for each sub-category as presented in Table 4 , and has obtained the following findings:

- A combined prevalence of 58.15% of women, who were satisfied with the communication throughout the birthing process.
- A combined prevalence of 10.1% of women, who had supportive care any point throughout the birthing process.
- A combined prevalence of 35.5% of women, who had autonomy throughout the birthing process.
- A combined prevalence of 73.7% of women, who were satisfied with resources of the health system throughout the birthing process.
- A combined prevalence of 68.8% of women, who were satisfied with policies of the health system throughout the birthing process.

Given the above, the combined prevalence was reported in the positive direction due to the fact that these studies originally reported positive outcomes, except two negative outcomes that were reversed in the calculations to match with the majority of the positive outcomes.

3.7 Risk Bias Assessment

The above-mentioned findings were all based on the risk of bias judgements that are shown in **Table 5.** Six studies out of the 11 studies (54.5%) have a low overall risk of bias, while the remaining five studies (45.5%) have a moderate overall risk of bias. Accordingly, it was apparent that the majority of the studies were judged to be high risk of bias for the target population (i.e. the target population was not a close representation of the national population), for the sampling frame (i.e. it was not a true or close representation of the target population), and for the random selection.

All studies were judged to be low risk of bias for the case definition, the standard mode of data collection (i.e. data were collected from all the subjects using same mode), and the numerators and denominators (i.e. appropriate calculations for the parameters of interest).

Table 5: Risk Bias Assessment as per Hoy's Criteria

First Author/Year	Target population	Sampling frame	Random selection	Non-response bias	Direct or proxy data collection	Case definition	Reliability and validity	Standard mode of data collection	Prevalence period	Numerators and denominators	Summary overall risk
Ahmed, 2020 (133)	🔴	🔴	🔴	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟠
Bashour, 2005 (134)	🔴	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Boukhalfa, 2016 (135)	🔴	🔴	🔴	🟢	🔴	🟢	🟢	🟢	🟢	🟢	🟠
Fort, 2012 (136)	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🔴	🟢	🟢
Kabakian-Khasholian, 2017 (137)	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Kempe, 2010 (138)	🔴	🔴	🟢	🟢	🟢	🟢	🔴	🟢	🔴	🟢	🟠
Kempe, 2011 (139)	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🔴	🟢	🟢
Mohamma, 2014 (140)	🔴	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Monazea, 2015 (143)	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Oweis, 2009 (141)	🔴	🔴	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟠
Sayed, 2018 (142)	🔴	🔴	🔴	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟠

Legend

Red 🔴 = High risk,

Green 🟢 = Low risk,

Orange 🟠 = Moderate risk

CHAPTER 4: DISCUSSION

For ease of reading the discussion, we generally refer to the "final number of the included studies" as the "11 studies" unless otherwise noted. We also refer to "mistreatment of women throughout the birthing process in health facilities" as "mistreatment of women". Finally, we generally refer to the "evidence-based typology that was developed by the WHO researchers; Bohren and colleagues" as the "evidence-based typology".

Below sections discuss points related to estimating the prevalence of mistreatment of women, the terminology, tools, and typology used in measuring mistreatment, methodological issues within the included studies, and the assessment of the risk of bias for the included studies. In addition to strengths and methodological considerations of the current review.

4.1 Estimating the Prevalence of Mistreatment of Women

The review identified 11 studies addressing either a question, an objective, or secondary outcome related to the prevalence of mistreatment in order to estimate the prevalence of mistreatment of women throughout the birthing process in health facilities in Arab countries. However, estimating the prevalence was hard to obtain due to considerable variability in the

terms measured, in the tools used to measure the terms, and in the methodological characteristics of each study. This finding is in agreement with the finding of Sando and colleagues' systematic review, that demonstrated that the lack of standardized definitions, instruments, and study methods used in measuring disrespect and abuse were the reasons behind affecting the comparability between results and introducing systemic errors in reported prevalence estimates (146).

Moreover, using single methodology and definition in the WHO study that was conducted to estimate the prevalence of violence agaisnt women across ten countries and cultures greatly reduced the challenges faced by earlier conducted research. It also enabled comparability with the newly conducted international research intitaives using the same methodology and definition. This resulted in gaining a more comprehensive picture of violence against women around the world (48).

Despite the above-mentioned heterogeneity in the included studies, the review provided an insight into the estimated prevalence of each sub-category. It was found to be generally suboptimal with a wide variation between the 5 sub-categories - which are "ineffective communication", "lack of supportive care", "loss of autonomy", "lack of resources", and "lack of policies". The least combined prevalence, which was 10.1%, was

estimated for the availability of supportive care. A few number of women who gave birth had birth companion presented during their childbirth. This would lead to women feeling alone and unsupported (147). This finding was against the recommendation on continuous support during childbirth that emphasizes all women should have continuous support throughout their birthing process, since this support has significant benefits for the women and the infants (148). Moreover, Arab women greatly value the presence of someone whom they know, choose and trust to support them during their labor and childbirth (149).

The second least combined prevalence was estimated for having autonomy where only 35.5% of women had authority and control during their childbirth process. This highlights the medicalization of the birthing process and the objectification of women during the process as well (150, 151). However, it is important for women to remain at the center of her childbirth experience and to be well informed and involved in making necessary birth-related decisions (152, 153). Since experiencing a loss of control during labor and birth would negatively affect the overall birth experience, satisfaction with the childbirth experience and emotional well-being of the woman (152, 154, 155).

More than half of the women were estimated to be satisfied with the communication (58.15%) and with the policies of the health system (68.8%) throughout the birthing process. However, the two estimated combined prevalences were considered to be suboptimal. A systematic review showed that the amount of support from caregivers, the quality of the caregiver-provider relationship and the involvement in decision making were so important for the women when they evaluate their childbirth experience. These factors would even override the influence of the physical birth environment (156).

Finally, the highest combined prevalence, which was 73.7%, was estimated for the availability of the resources in the health system, which is still considered to be suboptimal.

It's worth reminding the reader that all the estimated readings were in the positive direction because the majority of the findings were reported in the positive direction (e.g. "Overall satisfaction of women with communication of midwives and physicians during labor and birth", "presence of birth support persons", "women's authority during childbirth"), however, the evidence-based typology is in the negative direction (e.g. "ineffective communication", "lack of supportive care", "loss of autonomy"), which was reversed in the analysis to match the combined prevalence estimates.

The results proved to be incomparable with other studies simply because the combined prevalence is not precise due to the heterogeneity between the included studies, and this method was adopted to shed the light on the prevalence of mistreatment of women in Arab countries.

4.2 The Terminology used in Measuring Mistreatment of Women

The terms used in the 11 studies were not synonyms for mistreatment of women. However, they were considered a proxy to mistreatment, since they did not directly measure it. These terms were used to reflect on mistreatment of women and their reflections can be classified as types of it. Henceforth, it was not possible to attest that these terms were associated with mistreatment of women, since they were measured in the positive direction. For example, presence of birth support cannot be associated with mistreatment, while lack of supportive care can be. Moreover, women's authority during childbirth cannot be associated with mistreatment, while loss of autonomy can be. Therefore, we can only relate the results of measuring these terms to mistreatment of women during facility-based childbirth.

Looking back at **Table 1** in regards to the 20 used keywords that express mistreatment of women; none of the expected keywords were found in the 11 studies such as "disrespect, abuse, respect, and obstetric violence". The

terms found were more related to childbirth experience, attitude of health personnel, and physician-patient relations. Moreover, we searched specifically for the terminology “obstetric violence” and “disrespect” along with the other keywords of health facilities, childbirth and Arab countries but no records were found as well. It seems that these keywords have not been tackled yet quantitatively in the Arab world. However, it is worth mentioning that one of the qualitative studies that was excluded from the review had used the terms “disrespect and abuse”, and “mistreatment” and this study was conducted in 2017 (157). This means that such terms are new to the Arab world and Arab researchers are still exploring them and have not yet developed tools to measure them.

The terms found in the 11 studies were very different from each other covering different aspects in the area of what the terms measure. The diversity yielded the inability to define one united term that expresses mistreatment of women, which in turn led to the variety in the tools used to measure the terms. Although the terms were different, they were found within only two main typologies from the seven evidence-based typologies (145). In other words, the terms were so diverse, however, in the same domain.

Despite the above, the found terminologies were not comprehensive so as to cover different aspects of mistreatment of women, or wide enough to spread among different types from the evidence-based typology. However, the typology proposed by the WHO for the mistreatment of women was developed to be comprehensive, evidence-based and broad to include all forms of mistreatment. Mistreatment of women may stem from both intentional and unintentional actions, and may occur at the level of women and provider interaction, and at the level of the health system (145).

The narrow scope of the terminologies indicates the need to use a direct and comprehensive terminology as opposed to the proxy and shallow terms, in order to cover a wider range of domains, and to allow for better understanding, expression and measurement of mistreatment of women. The comprehensive terminology should have a standardized definition and have a clear operational definition to enable comparability between future studies locally, regionally and internationally.

4.3 The Tools used in Measuring Mistreatment of Women

The tools that were used to measure the terms varied widely in terms of the content, the aspects the tools covered, the length of the tool, the purpose, whether developed or adapted, the outputs of the tools (i.e.

mean score and prevalence), and the outcomes that were related to mistreatment depending on the diverse terms measured. This resulted in incomparable results between the 11 studies, which is an important issue for utilizing the urgent need of implementing a standardized tool with proper adaptation and validation process in quantitative studies. This finding is in agreement with the finding of a systematic review that emphasized the necessity of providing a standard tool in order to accurately estimate the prevalence of women's childbirth experiences and enable comparability (158).

Additionally, the tools did not cover all aspects of the terms measured. They were not comprehensive enough to cover several dimensions of the terms measured. The content was focused on one or two dimensions depending on the term being measured, however the terms being measured were multidimensional variables. Rudman concluded that using a multi-item instrument that covers different dimensions of care, would give a richer picture and deeper understanding of women's childbirth experiences, even though this picture might be a negative one (159).

Therefore, the standardized tool should be comprehensive and be the building block for measuring the comprehensive and standardized terminology, to enable comparison across time and between countries.

Several studies that measured disrespect and abuse based on Browser and Hill categories, employed different operational definitions due to the lack of a standardized operational definition. This resulted in differences in estimates of prevalence, thus facing the same problem of having incomparable results and preventing the possibility of conducting a meta-analysis (70, 160, 161). This finding is in agreement with Nilver's systematic review that concluded that even when researchers and clinicians used different instruments to measure the same construct of interest, such as women's childbirth experiences, it will be difficult to compare and statistically report results in systematic reviews (162). Therefore, standardized terminology should be accompanied by standardized tool.

4.4 The Typology used in Measuring Mistreatment of Women

As mentioned previously, the types of mistreatment found in the 11 studies did not exceed two main typologies out of the seven from the evidence-based typology - which are "poor rapport between women and providers" and "health system conditions and constraints". Furthermore, the search for specific keywords such as "physical abuse" and "verbal abuse" along with the other keywords of health facilities, childbirth and Arab countries yielded no records in the databases search. In addition, a

backward analysis was conducted; the typologies mentioned in the evidence-based typology were searched in the 11 studies thoroughly and none were found as well.

It was apparent that the types used in the 11 studies were found to be marginal in comparison with the ones mentioned in the evidence-based typology that the WHO developed. Despite that, it was possible to classify them among two typologies as was explained in the results section of this thesis.

A theory behind why other types were not used in the 11 studies was that researchers in Arab countries did not consider the remaining typologies in their research about the childbirth experience as a priority to improve the quality of care. The result of not considering other types yielded tools that were not comprehensive enough, to include other domains of mistreatment, or to measure childbirth experience.

Consequently, and out of curiosity, the qualitative studies within the 163 studies that were excluded in the screening and eligibility phase, were screened for other types, and it was found that six studies were related to the topic of mistreatment of women (157, 163-167). These studies included additional types that would have been classified in the other four main

typologies: “physical abuse” (157, 164), “verbal abuse” (157, 163, 164, 166, 167), “stigma and discrimination” (157, 163), and “failure to meet professional standards of care” (i.e. “neglect and abandonment” (157, 164, 166, 167), “lack of informed consent process” (165), “physical examinations and procedures” (165)).

Three of the previously mentioned six studies were part of the included studies in the mixed-method systematic review that was done by Bohren and colleagues to develop the evidence-based typology (164, 165, 167). These studies contributed with other studies in developing the typologies of “physical abuse”, “verbal abuse”, “failure to meet professional standards of care”, “poor rapport between women and providers”, and “health system conditions and constraints”.

It seems that when women were allowed to speak their minds about their childbirth experience, they reflected on these four main typologies due to the negative impact it had on their childbirth experience (168). Consequently, these typologies should be explored specifically in future quantitative studies that will be carried out in Arab countries. In addition, the tools used in the quantitative studies should be comprehensive for all the typologies mentioned in the evidence-based typology and should as well cover all dimensions of the childbirth experience.

Moreover, it is worth mentioning, that we did not find and it is hard to find the typology of “sexual abuse” in studies that are conducted in Arab countries. Obtaining information about “sexual abuse” or “sexual violence” in the Arab societies are not easy, since talking about sex in general is a sensitive topic in the Arab world, and cultural values reinforce silence and inaction around such experienced events (169, 170).

4.5 Methodological Issues within the Included Studies

4.5.1 The Timing of the Interview

The timing of the interview varied between three categories. First category was women being in the postpartum ward before discharge from hospital. This is very short time after birth and women are usually exhausted from the childbirth process. The second category being women having a healthy newborn up to one year after delivery at either Maternal and Child Health or Public Health clinics. The third one was women with childbirth experience without specifying the time period. Therefore, it was hard to evaluate the effect of the variability in the timing on the results of the 11 studies due to the heterogeneity of the terms measured and the tools used.

Moreover, timing of the interview is crucial and important. In one hand, recall bias should be reduced, and on the other hand, the women should

be given enough time to recover from the birth experience to be able to provide objective opinion. It's worth noting that literature suggested that recall maybe more accurate in the postpartum period than immediately following a childbirth when women are physically exhausted and have no time to mentally process the events that occurred during childbirth (80, 146). Additionally, exit surveys done on the grounds of the facility may induce courtesy bias or reluctant to disappoint researchers by reporting negative experiences, especially when the interviewers were perceived to be affiliated with the same facility (70, 76).

In addition, women may underreport the unpleasant behaviors when doing an exit interview while still on the grounds of the facility, because women may be afraid that reporting may affect their future use of services at the same facility even if it is conducted in private place (55, 76).

On the other hand, if the interview was conducted long time after birth, the prevalence may be over or underestimated due to induced recall bias, or women may more likely remember unpleasant experiences only (71).

4.5.2 The Method of Data Collection

A standardized method of data collection should be implemented in quantitative studies that measure mistreatment of women. Also, the

method of data collection is preferable to be interviewer-administered questionnaire, so illiterate women will not be excluded. Literacy is an important factor associated with mistreatment of women during childbirth (70, 73, 171). Therefore, the experience of illiterate women is necessary in measuring mistreatment of women during facility-based childbirth.

4.5.3 The Setting for Data Collection

The setting for data collection varied between hospital-based, clinic-based and community-based. The results were incomparable and the effect of this variability in the setting could not be detected due to heterogeneity in the terms measured, timing, and tool.

Moreover, the setting of data collection may influence the accuracy of the reported prevalence (146). Consequently, data should be collected in a standardized setting to enable comparability, and this setting should be neutral in order to avoid errors in reporting on mistreatment. Since literature has shown that interviewing women while still in or near the facility which provided the care, may affect the women's willingness of reporting mistreatment. As women may be not feeling comfortable to report negative experience while still in the same facility (146), which in turn would lead to inducing social desirability bias (73).

4.5.4 The Topic of the 11 Studies

Again, we have noted that the topics of the 11 studies were not directly measuring mistreatment; but were related in a way or another to mistreatment. It was noticed that the studies that were indirectly related to mistreatment or had secondary outcomes related to mistreatment or some types of mistreatment, were not aware that the outcomes they were measuring could be considered some types of mistreatment, otherwise, it would have been indicated anywhere in the studies.

Additionally, it's worth noting that the 11 studies belong to only seven Arab countries out of 22 Arab countries. The other fifteen countries are still not involved in measuring and improving quality of care in maternal health services. It was further investigated whether the other fifteen countries appeared in our search and were excluded for a reason or another. Eight countries appeared in our search (i.e. Tunisia, Palestine, Algeria, Sudan, Saudi Arabia, Oman, Kuwait, and United Arab emirates), but their studies were excluded due to being qualitative or not related to the topic of mistreatment of women. The remaining seven countries did not appear at all in our search, such as Mauritania, Somalia, Djibouti, Comoros; however, these countries have a maternal mortality ratio that ranged between intermediate and very high, and hence need to conduct research and

increase efforts to decrease maternal deaths and improve maternal health (172). Since conducting research on mistreatment of women or women's childbirth experiences would improve the quality of the maternal health services, thus improving the overall maternal health and reducing the overall maternal mortality (3, 52).

The topic of mistreatment of women is still understudied quantitatively and qualitatively in Arab countries. This is because the topic is still not yet known, or not considered a problem yet in Arab countries. This indicates that the research output in Arab countries, although it showed a prominent increase in the past decade, is still minimal and lagging behind the rest of the world as in many other fields (173-178).

4.5.5 Number of Authors

The number of authors usually indicates the multi-disciplinary and complexity of the research (179). However, it was noticed that several studies were written by a limited number of one or two authors, whom are scientists or professors interested in conducting research in the area of reproductive health, women's health and maternal and child health; and not students as one would think. Given that, it is recommended to widen the scale of future studies by using a larger group of authors, since this

topic is considered a multi-disciplinary topic that requires a multi-dimensional contributions from different disciplines (180).

4.5.6 Year of Publication

There were no published studies before 2005 which means that the topic of women's experiences during facility-based childbirth is new. The topic started in conjunction with the global emphasis on encouraging women to deliver in health facilities (181) after the adoption of the Millennium Development Goal No. 5 in order to reduce maternal mortality and improve maternal health (182).

During this time, experiences of childbirth at health facilities was important but a neglected area of research in Arab countries (181). Since then, a number of Arab researchers have conducted several studies in Egypt, Lebanon, Syria and occupied Palestinian territory to understand the experience of facility-based childbirth from the women's point of view (181). The findings of these studies identified problems in the quality of maternal services and a lack of women's involvement in the process of maternity care (183).

Referring back to the data extraction sheet provided in **ANNEX 3**, it was obvious that there was a delay between the year a study was conducted

and the year that study was published with a period range between two to four years. This delay indicates the low utilization of research in Arab countries. Furthermore, the important factors that impedes publishing include; decision makers do not consider research important, lack of economic support, lack of mentoring of research, in addition to limited time dedicated to research at work (177, 184).

4.5.7 Response Rate

The response rate in the 11 studies was generally high, meaning that women in Arab countries are willing to share their childbirth experience, and willing to participate in research conducted about the childbirth experience or improving maternal health services, even if the interview was conducted after birth and the women might be tired. Arab researchers should take advantage of this point and increase the research in this area, however, they should take into consideration the right tool to be used and whether it will be accepted by the surrounding community.

4.6 Risk Bias Assessment

Although studies that were judged to have moderate overall risk of bias were included in this review, high overall risk of bias would be included as well, because the intention was to identify what terminology and types they were using, since it was clear from the results that it was impossible to

use numbers to estimate the prevalence of mistreatment due to the heterogeneity in all aspects of the 11 studies.

4.7 Strengths of the Current Review

This systematic review was the first to be conducted among Arab countries. It showed the contribution of Arab countries to the research of mistreatment of women during facility-based childbirth. It also showed that this topic is still new and not tackled quantitatively yet. It recommended future researchers to increase their research in this area using standardized definition, tool and study method to accurately measure mistreatment of women and enable comparison across time and between countries. It also prepares future researchers to face some challenges when using the WHO standardized tool due to some terms and typologies that have not been used in the Arabic countries yet.

4.8 Methodological Considerations of the Current Review

The review attempted to identify all studies conducted about mistreatment of women during facility-based childbirth in Arab countries, despite that it is still possible that other relevant studies may have been missed as a result of the following reasons: First, we searched in three databases only because of the limited possibilities at Birzeit University, taking into consideration that there are journals that publish in other databases; to

overcome this limitation, we recommend to increase the number of the databases for conducting a wider search. Second, the search did not result with studies' titles and abstracts that have the nationality keywords instead of the country name, such as Jordanian, Egyptian, Lebanese, Syrian, etc., since it was difficult to include more than the achieved 26 keywords.

The hand searching yielded 15 new studies after excluding all studies that were duplicates, have clear qualitative and randomized control trial designs, and doctorate dissertations. These 15 studies were the result of the previously mentioned two reasons. Moreover, the purpose behind the hand searching was to make sure that no relevant studies were missed during the search. In this thesis, grey literature and unpublished reports were not screened, because the focus was on published articles only.

In order to improve the search strategy for this review, it is worth increasing the number of databases, as well as, adding the nationality keywords, and screening grey literature, unpublished reports and hand searching.

The inclusion criteria for this review tried to include all studies published in Arabic and English, however, the search did not result in studies that were published in Arabic. In addition, the search did not find studies that were

published in French, since French is widely common in Algeria, Tunisia and Morocco. This concluded that the language was not a major factor that controlled the number of studies included.

The search as well did not find studies that included observation of women who are giving birth, despite that, there were several questions about the way doctor, nurse, other health workers treated the women, but without observing and comparing what actually happened and what was reported. It is apparent that the observation method may not be accepted in Arab countries, and future studies that will use this method of data collection will face challenges in applying it, as in the Myanmar case (111).

This current review focused on the content of the study rather than the quality of the research published and the purpose behind this was to include all available information regardless of the quality, because it was meant for understanding each term and type, both used and measured.

This thesis aimed on performing a subgroup analysis, but unfortunately, this was not possible due to the heterogeneity between the 11 studies.

Finally, two studies from the 11 studies that were conducted in Yemen measured the same outcome within the same study methodological characteristics, but resulted with different numbers, and since it was not

possible to decide on which number to consider, both prevalence were considered for the analysis.

4.9 Recommendations

This review recommends that future quantitative studies in Arab countries use a standardized and comprehensive terminology for mistreatment of women. Also, a standardized tool that covers all aspects of mistreatment. In addition to a standardized timing, method of data collection, setting of data collection and an inclusion criteria to enhance comparability between results and to allow pooling when estimating the prevalence.

This review also recommends updating this review specifically to include qualitative studies that are related to mistreatment of women in Arab countries to provide sufficient information for a more holistic understanding on the mistreatment of women, and to further investigate what other terms and types would result. This would bring more depth to the topic and provide robustness to the analysis.

To support contribution to literature, it's recommended as well, that researchers in Arab countries consider the mistreatment of women as an important topic and look at it in a comprehensive picture. In addition to, the use of a wider range of typologies that would cover the different

aspects of this topic in future quantitative studies in order to establish a holistic insight about mistreatment of women. In case researchers want to measure one typology, it's recommended to measure the typology of interest using a standardized tool to enable comparison in the future.

It is also recommended to increase the number of databases for conducting the search, along with performing a grey literature and hand searching, so that researchers would avoid the possibility of missing any relevant studies.

Additionally, it is recommended to conduct more research on mistreatment of women throughout the birthing process in Arab countries, due to the limited research conducted on the topic compared to the importance of such topic in improving the quality of maternal health services thus improving maternal health in the region.

Finally, it is recommended to use the evidence-based typology that was developed by WHO researchers, since it has a clear definition for mistreatment of women during facility-based childbirth and a standardized tool and methodology.

Taking into consideration that the adaptation of the use of this tool in Arab countries may expose the researcher to face some challenges, given

that some of the types and terms measured in this tool were not tackled yet in the Arab world, thus may not be understood probably, and the observation part may not be accepted. The researcher may choose to conduct a study on one typology, using the standardized tool to allow pooling in the future, not necessarily measuring all typologies mentioned in the evidence-based typology.

4.10 Conclusion

The quantitative studies in Arab countries did not tackle the topic of mistreatment of women throughout the birthing process in health facilities directly, the resulted terms were a proxy for the word mistreatment.

Estimating the prevalence for these proxy terms was hard to obtain, due to the heterogeneity of the terms used, tools that were used to operationalize the terms, inclusion/exclusion criteria, and the methodological characteristics of the conducted studies.

The resulted types were mainly classified under the sixth and seventh typologies, therefore, there were no diversity in the types measured, and many dimensions of the mistreatment topic were neglected and should be taken into consideration.

The tools, that were used to measure the different terms in the review, were very different and covered limited aspects of the measured terms. Consequently, it was not possible to combine the results of these tools in order to estimate the prevalence of mistreatment of women as planned for this thesis.

Despite these methodological limitations, the insight provided by the combined prevalence indicated that the prevalence of each type of mistreatment of women throughout the birthing process found in Arab countries is suboptimal. More research should be conducted to better understand women's experiences during facility-based childbirth in Arab countries to improve the quality of maternal health services. This research topic should be comprehensive while taking into consideration all aspects of mistreatment of women using standardized terminology, tool and methodology.

ANNEX 1: SYSTEMATIC REVIEW PROTOCOL

Women's experiences throughout the birthing process in health facilities in the Arab Countries

A systematic review

Areen Awwad

Review question

What is the estimated prevalence of mistreatment that women may experience throughout the birthing process in health facilities in the Arab countries considering different definitions of mistreatment?

Sub research questions:

What are the types considered in measuring the mistreatment of women throughout the birthing process in health facilities in the Arab countries?

What is the terminology used in measuring the mistreatment of women throughout the birthing process in health facilities in the Arab countries?

What are the tools used to measure the mistreatment of women throughout the birthing process in health facilities in the Arab countries?

What are the methods/approaches used to measure the mistreatment of women throughout the birthing process in health facilities in the Arab countries?

Searches

We will conduct the search in the following electronic databases: PubMed, EMBASE, CINAHL.

Searching will be limited to literature published in English and Arabic with no restrictions on the publication year.

The search will be conducted using the following keywords: mistreatment, obstetric violence, disrespect, abuse, disrespectful care, respectful care, dehumanizing care, unconsented care, childbirth, birth, facility-based, hospital birth, institutional birth, labor/labour, abandonment, access, physical abuse, verbal abuse, sexual abuse, stigma, discrimination, professional standards of care, the poor rapport between women and providers, health system conditions and constraints, and delivery in all Arab countries.

Types of study to be included

Inclusion criteria: All observational studies; cross-sectional and cohort that report the prevalence of mistreatment of women throughout the birthing process in the countries included in the Arab countries.
Exclusion criteria: Studies that reported the prevalence of mistreatment of women throughout the birthing process in health facilities by countries outside the Arab countries.

Condition or domain being studied

Experiences of mistreatment reported by women or observed by trained professionals during labor and delivery in a health facility.

Participants/population

This study will include women, in the reproductive age, giving birth in a health facility in the Arab countries.

Intervention(s), exposure(s)

Mistreatment of women throughout the birthing process in health facilities that will be defined based on the standardized typology of mistreatment that was developed by the WHO researchers Bohren et al. (2015) who

identified seven typologies of mistreatment of women during childbirth: "physical abuse, verbal abuse, sexual abuse, stigma and discrimination, failure to meet professional standards of care, the poor rapport between women and providers, and health system conditions and constraints".

Comparator(s)/control

Not applicable

Context

Experiences of mistreatment of women throughout the birthing process in health facilities in the Arab countries that include: Jordan, Palestine, Syria, Lebanon, Morocco, Mauritania, Algeria, Tunisia, Libya, Sudan, Somalia, Egypt, Saudi Arabia, Yemen, Oman, Qatar, Bahrain, Kuwait, the Comoros Islands, Iraq, Djibouti, and the United Arab Emirates.

Main outcome(s)

Estimating the prevalence of mistreatment of women throughout the birthing process in health facilities in the Arab countries using the standardized typology of Bohren et al. (2015).

Secondary outcomes(s)

Examining the types considered in measuring the mistreatment of women throughout the birthing process in health facilities.

Evaluating the terminology, tools and methods used in measuring the mistreatment.

Data extraction (selection and coding)

Titles and/or abstracts of studies will be screened independently by two reviewers. The full texts of these potentially eligible studies will be retrieved and independently assessed for eligibility by two reviewers with disagreements will be resolved through consensus with the supervisor of

the study. Data will be extracted using a standardized template piloted and agreed by the review team and including data required to assess study quality. The extracted information will include: study setting/ region; study design; study details (date and follow-up), study population; sample size; study methodology; recruitment and study completion rates; the prevalence of mistreatment; types of mistreatment; measurement tools used; definition and terminology of mistreatment.

Risk of bias (quality) assessment

Two reviewers will independently assess the risk of bias using the 10-item tool to assess the risk of bias in prevalence studies developed by Hoy et al. (2012). Disagreements will be resolved by consensus, with the involvement of the supervisor of the study where necessary.

The magnitude of heterogeneity between studies will be measured by the index of heterogeneity test.

Strategy for data synthesis

Initially, a flow chart will be elaborated to show the number of studies remaining at each stage of the selection process. Then we will provide a narrative synthesis of the findings from the included studies structured around measurement tools used, the validity of the measures used within the article, the definitions used, population characteristics, prevalence estimates, however we will be using the standardized typology of Bohren et al. (2015) for the analysis in order to try estimate the prevalence.

Analysis of subgroups or subsets

Where available, subgroup analysis will include an examination of prevalence estimates in studies using validated measures of mistreatment. In addition, where applicable we will examine studies with a low risk of bias separately, in terms of prevalence estimates.

We will conduct quantitative sub-group analyses by each typology of mistreatment, as categorized by Bohren et al. (2015), to account for variability in the definitions of mistreatment across the studies.

ANNEX 2: SCREENSHOTS FOR THE SEARCH STRATEGIES UDES IN EMBASE, PUBMED AND CINAHL RESPECTIVELY

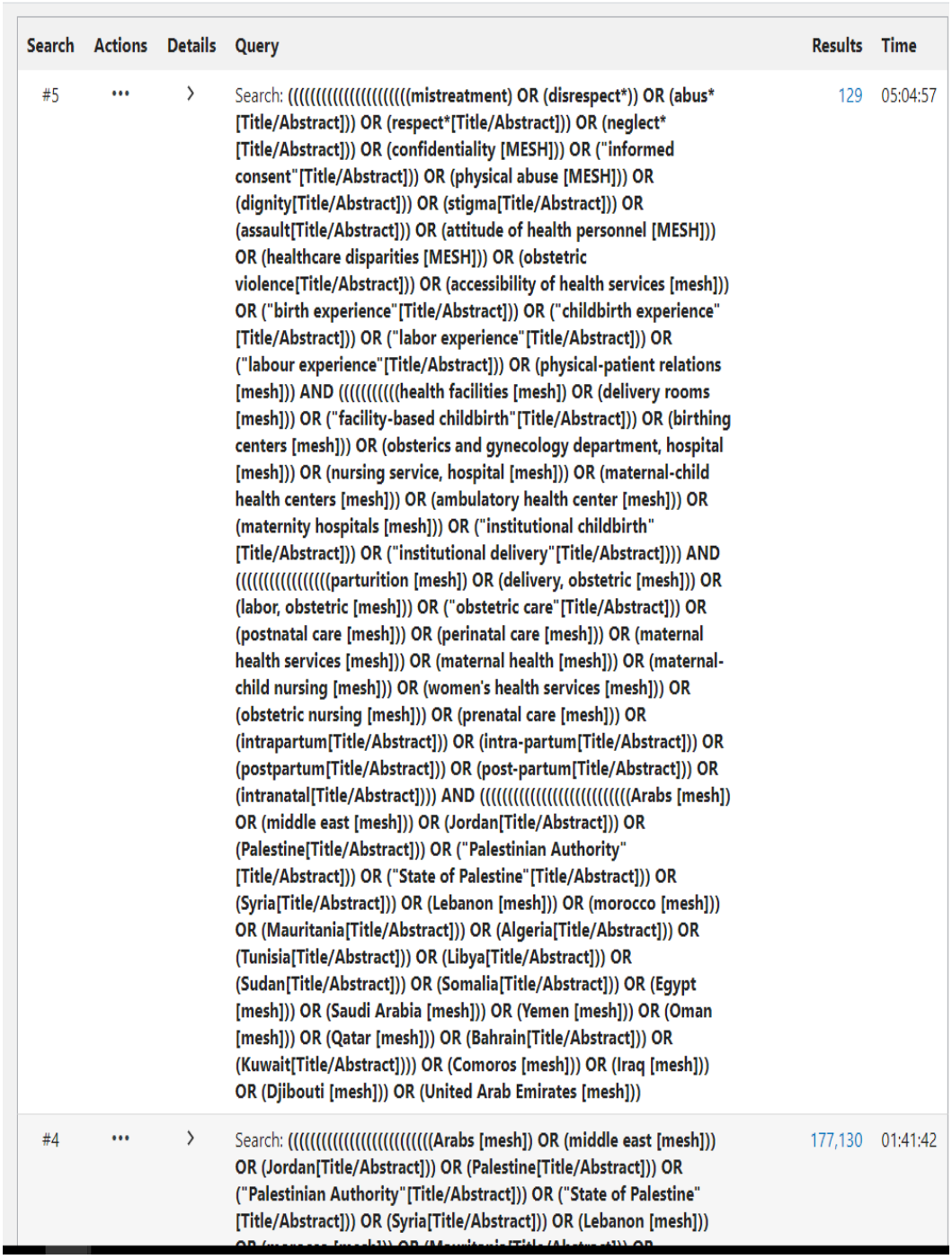
Picture 1: EMBASE Search Stratgey

Search Queries

No.	Query	Results	Date
#3	(mistreatment:ab,ti OR disrespect*:ab,ti OR abus*:ab,ti OR respect*:ab,ti OR neglect*:ab,ti OR 'confidentiality [mesh]':ab,ti OR 'informed consent':ab,ti OR 'physical abuse [mesh]':ab,ti OR dignity:ab,ti OR stigma:ab,ti OR assault:ab,ti OR 'attitude of health personnel [mesh]':ab,ti OR 'health care disparity [mesh]':ab,ti OR 'obstetric violence [mesh]':ab,ti OR 'accessibility of health services [mesh]':ab,ti OR 'birth experience':ab,ti OR 'childbirth experience':ab,ti OR 'labor experience':ab,ti OR 'labour experience':ab,ti OR 'physician-patient relations [mesh]':ab,ti) AND ('health facilities [mesh]':ab,ti OR 'delivery rooms [mesh]':ab,ti OR 'facility-based childbirth':ab,ti OR 'birthing centers [mesh]':ab,ti OR 'hospital department':ab,ti OR nursing:ab,ti OR 'maternal child health care':ab,ti OR 'ambulatory health center [mesh]':ab,ti OR 'maternity hospitals mesh':ab,ti OR 'institutional childbirth':ab,ti OR 'institutional delivery':ab,ti) AND (birth:ab,ti OR 'obstetric delivery':ab,ti OR	14	30 May 2020

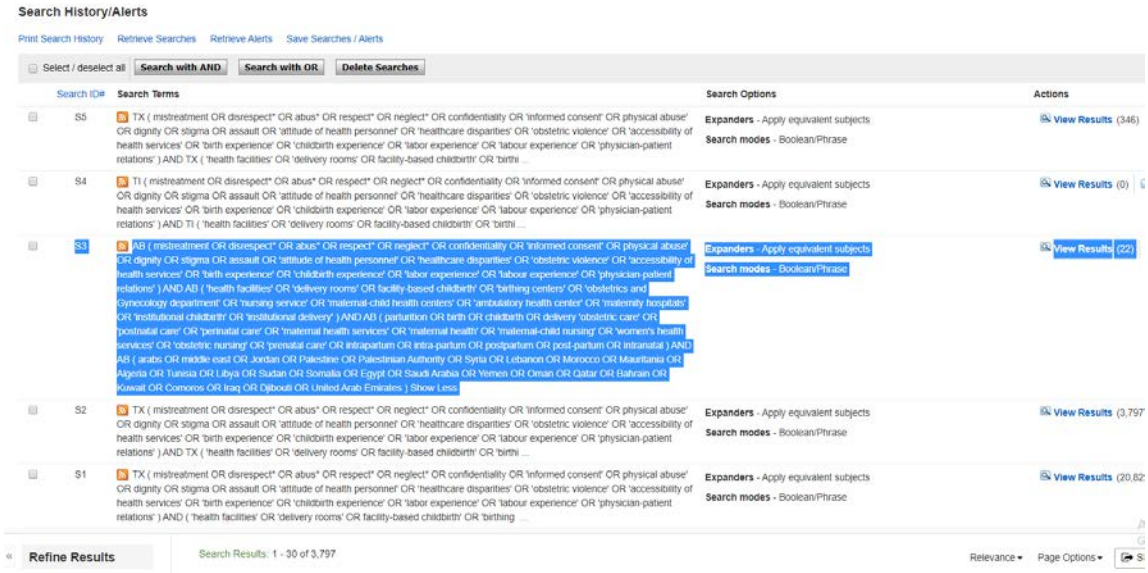
labor:ab,ti OR 'obstetric procedure':ab,ti OR 'postnatal care':ab,ti OR 'perinatal care':ab,ti OR 'maternal health service':ab,ti OR 'maternal child health care':ab,ti OR 'obstetric nursing':ab,ti OR 'prenatal care':ab,ti OR intrapartum:ab,ti OR 'intra partum':ab,ti OR postpartum:ab,ti OR 'post partum':ab,ti OR intranatal:ab,ti) AND (arab:ab,ti OR 'middle east':ab,ti OR jordan:ab,ti OR palestine:ab,ti OR 'palestinian authority':ab,ti OR syria:ab,ti OR lebanon:ab,ti OR morocco:ab,ti OR mauritania:ab,ti OR algeria:ab,ti OR tunisia:ab,ti OR libya:ab,ti OR sudan:ab,ti OR somalia:ab,ti OR egypt:ab,ti OR 'saudi arabia':ab,ti OR yemen:ab,ti OR oman:ab,ti OR qatar:ab,ti OR bahrain:ab,ti OR kuwait:ab,ti OR comoros:ab,ti OR iraq:ab,ti OR djibouti:ab,ti OR 'united arab emirates':ab,ti)

Picture 2: PUBMED Search Strategy



Search	Actions	Details	Query	Results	Time
#5	•••	›	Search: ((((((((((((((((((((((((((mistreatment) OR (disrespect*)) OR (abus* [Title/Abstract])) OR (respect*[Title/Abstract])) OR (neglect* [Title/Abstract])) OR (confidentiality [MESH])) OR ("informed consent"[Title/Abstract])) OR (physical abuse [MESH])) OR (dignity[Title/Abstract])) OR (stigma[Title/Abstract])) OR (assault[Title/Abstract])) OR (attitude of health personnel [MESH])) OR (healthcare disparities [MESH])) OR (obstetric violence[Title/Abstract])) OR (accessibility of health services [mesh])) OR ("birth experience"[Title/Abstract])) OR ("childbirth experience" [Title/Abstract])) OR ("labor experience"[Title/Abstract])) OR ("labour experience"[Title/Abstract])) OR (physical-patient relations [mesh])) AND ((((((((((health facilities [mesh]) OR (delivery rooms [mesh])) OR ("facility-based childbirth"[Title/Abstract])) OR (birthing centers [mesh])) OR (obsterics and gynecology department, hospital [mesh])) OR (nursing service, hospital [mesh])) OR (maternal-child health centers [mesh])) OR (ambulatory health center [mesh])) OR (maternity hospitals [mesh])) OR ("institutional childbirth" [Title/Abstract])) OR ("institutional delivery"[Title/Abstract]))) AND ((((((((((((((((parturition [mesh]) OR (delivery, obstetric [mesh])) OR (labor, obstetric [mesh])) OR ("obstetric care"[Title/Abstract])) OR (postnatal care [mesh])) OR (perinatal care [mesh])) OR (maternal health services [mesh])) OR (maternal health [mesh])) OR (maternal-child nursing [mesh])) OR (women's health services [mesh])) OR (obstetric nursing [mesh])) OR (prenatal care [mesh])) OR (intrapartum[Title/Abstract])) OR (intra-partum[Title/Abstract])) OR (postpartum[Title/Abstract])) OR (post-partum[Title/Abstract])) OR (intranatal[Title/Abstract]))) AND ((((((((((((((((((((((((((Arabs [mesh]) OR (middle east [mesh])) OR (Jordan[Title/Abstract])) OR (Palestine[Title/Abstract])) OR ("Palestinian Authority" [Title/Abstract])) OR ("State of Palestine"[Title/Abstract])) OR (Syria[Title/Abstract])) OR (Lebanon [mesh])) OR (morocco [mesh])) OR (Mauritania[Title/Abstract])) OR (Algeria[Title/Abstract])) OR (Tunisia[Title/Abstract])) OR (Libya[Title/Abstract])) OR (Sudan[Title/Abstract])) OR (Somalia[Title/Abstract])) OR (Egypt [mesh])) OR (Saudi Arabia [mesh])) OR (Yemen [mesh])) OR (Oman [mesh])) OR (Qatar [mesh])) OR (Bahrain[Title/Abstract])) OR (Kuwait[Title/Abstract]))) OR (Comoros [mesh])) OR (Iraq [mesh])) OR (Djibouti [mesh])) OR (United Arab Emirates [mesh]))	129	05:04:57
#4	•••	›	Search: ((((((((((((((((((((((((((Arabs [mesh]) OR (middle east [mesh])) OR (Jordan[Title/Abstract])) OR (Palestine[Title/Abstract])) OR ("Palestinian Authority"[Title/Abstract])) OR ("State of Palestine" [Title/Abstract])) OR (Syria[Title/Abstract])) OR (Lebanon [mesh]))	177,130	01:41:42

Picture 3: CINAHL Search Strategy



ANNEX 3: DATA EXTRACTION SHEET

Please refer to below attached Compact Disk (i.e. CD) for the Data Extraction Sheet.

ANNEX 4: LIST OF FULL TEXT EXCLUDED WITH REASONS

First Author, year	Study Title	Reason for exclusion
Abushaikha, 2007 (185)	"Methods of coping with labor pain used by Jordanian women"	Not cross-sectional, cohort or descriptive study designs
Ahamadani, 2014 (186)	"Perinatal health care in a conflict-affected setting: evaluation of health-care services and newborn outcomes at a regional medical centre in Iraq"	Not cross-sectional, cohort or descriptive study designs
Al-Rukeimi, 2017 (187)	"High rate of uterine rupture in a conflict setting of Hajjah, Yemen"	Not related to mistreatment of women during childbirth
AlSerouri, 2009 (188)	"Reducing maternal mortality in Yemen: challenges and lessons learned from baseline assessment"	Not related to mistreatment of women during childbirth
Arafa, 2000 (189)	"Outcomes of pregnancies complicated by early vaginal bleeding"	Not related to mistreatment of women during childbirth
Carlson, 2011(190)	"Fifty years of Sudanese hospital-based obstetric outcomes and an international partnership"	Abstracts only, reports and conferences
Couillet, 2007 (191)	"The use of antenatal services in health centres of Fès, Morocco"	Not related to mistreatment of women during

		childbirth
Dhaher, 2008 (192)	"Factors associated with lack of postnatal care among Palestinian women: a cross-sectional study of three clinics in the West Bank"	Not related to mistreatment of women during childbirth
Fouly, 2018 (193)	"Audit for quality of care and fate of maternal critical cases at Women's Health Hospital"	Not related to mistreatment of women during childbirth
Giacaman, 2007 (194)	"The limitations on choice: Palestinian women's childbirth location, dissatisfaction with the place of birth and determinants"	Not related to mistreatment of women during childbirth
Gray, 2019 (195)	"Obstetric violence: Clinical staff perceptions from a video of simulated practice"	Not related to mistreatment of women during childbirth
Handelzalts, 2016 (196)	"The association of birth model with resilience variables and birth experience: Home versus hospital birth"	Not Arab country
Hatamleh, 2013 (167)	"Evaluating the experience of Jordanian women with maternity care services"	Not cross-sectional, cohort or descriptive study designs
Kempe, 2011 (197)	"Veiled powersof culture: Autonomy and choice among childbearing women in the Arab world"	Abstracts only, reports and conferences
Mizrachi, 2017 (198)	"Does midwife experience affect the rate of severe	Not Arab country

	perineal tears?"	
Sweidan, 2008 (199)	"Hospital policies and practices concerning normal childbirth in Jordan"	Not related to mistreatment of women during childbirth
Tappis, 2017 (200)	"Maternal Health Care Utilization Among Syrian Refugees in Lebanon and Jordan"	Not related to mistreatment of women during childbirth
VanLerberghe, 2014 (201)	"Country experience with strengthening of health systems and deployment of midwives in countries with high maternal mortality"	Not related to mistreatment of women during childbirth
Vogel, 2014 (202)	"Maternal complications and perinatal mortality: findings of the World Health Organization Multicountry Survey on Maternal and Newborn Health"	Not related to mistreatment of women during childbirth
Wick, 2005 (203)	"Childbirth in Palestine"	Not related to mistreatment of women during childbirth
Zimmo, 2018 (204)	"Episiotomy practice in six Palestinian hospitals: a population-based cohort study among singleton vaginal births"	Not related to mistreatment of women during childbirth

ANNEX 5: EVIDENCE-BASED TYPOLOGY

Third-Order Themes	Second-Order Themes	First-Order Themes
Physical abuse	Use of force	Women beaten, slapped, kicked, or pinched during delivery
	Physical restraint	Women physically restrained to the bed or gagged during delivery
Sexual abuse	Sexual abuse	Sexual abuse or rape
Verbal abuse	Harsh language	Harsh or rude language
		Judgmental or accusatory comments
	Threats and blaming	Threats of withholding treatment or poor outcomes
		Blaming for poor outcomes
Stigma and discrimination	Discrimination based on sociodemographic characteristics	Discrimination based on ethnicity/race/religion
		Discrimination based on age
		Discrimination based on socioeconomic status
	Discrimination based on medical conditions	Discrimination based on HIV status
Failure to meet professional standards of care	Lack of informed consent and confidentiality	Lack of informed consent process
		Breaches of confidentiality
	Physical examinations and procedures	Painful vaginal exams
		Refusal to provide pain relief
		Performance of unconsented surgical operations
	Neglect and abandonment	Neglect, abandonment, or long delays
		Skilled attendant absent at time of delivery
Poor rapport between women and providers	Ineffective communication	Poor communication
		Dismissal of women's concerns
		Language and interpretation issues
		Poor staff attitudes
	Lack of supportive care	Lack of supportive care from health workers
		Denial or lack of birth companions
	Loss of autonomy	Women treated as passive participants during childbirth
		Denial of food, fluids, or mobility
		Lack of respect for women's preferred birth positions
		Denial of safe traditional practices
		Objectification of women
		Detainment in facilities
Health system conditions and constraints	Lack of resources	Physical condition of facilities
		Staffing constraints
		Staffing shortages
		Supply constraints
		Lack of privacy
	Lack of policies	Lack of redress
	Facility culture	Bribery and extortion
		Unclear fee structures
		Unreasonable requests of women by health workers

The typology presented in this table is an evidence-based classification system of how women are mistreated during childbirth in health facilities, based on the findings of the evidence syntheses. The first-order themes are identification criteria describing specific events or instances of mistreatment. The second- and third-order themes further classify these first-order themes into meaningful groups based on common attributes. The third-order themes are ordered from the level of interpersonal relations through the level of the health system.

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