



SDI Review Form 1.6

Journal Name:	<u>British Journal of Medicine and Medical Research</u>
Manuscript Number:	Ms_BJMMR_21551
Title of the Manuscript:	Evaluation of Postural Stability in Pregnant Women
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>This manuscript has plagiarized a large portion of the introduction and methods from McCrory, Chambers, Daftary, and Redfern "Dynamic postural stability in pregnant fallers and non-fallers", British Journal of Obstetrics and Gynecology, 2010; 117, 954-962. See attached paper in which copied sentences are highlighted in yellow.</p> <p>The language is often awkward. Please have a native English speaker correct this awkwardness.</p> <p>The authors are remiss not to include McCrory, Chambers, Daftary, and Redfern "Dynamic postural stability during advancing pregnancy" Journal of Biomechanics. 2010l 43m 2434-2439 because of its similarity to their current work.</p> <p>Line 1: "Strange health condition" sounds odd. Pregnancy is a perfectly normal and common health condition.</p> <p>Much of lines 2-3 and 17-22 is copied from McCrory et al., BJOG, 2010.</p> <p>Throughout: Collapses is not a synonym for falls. Collapses implies illness or inability to stand, such as from fainting, where a fall is typically due to a slip or a trip.</p>	



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	<p>Lines 37-38: What is meant by “being popular with lifestyle”? Please reword.</p> <p>Lines 52-57 and 59-66 are copied from McCrory et al., BJOG, 2010.</p> <p>How is the “Stability Index” calculated? How does it relate to tradition COP assessments? Is it determined from platform movement or force parameters? Please provide more details about what this is.</p> <p>The authors blatantly plagiarized large sections of the introduction and methods from McCrory et al., BJOG 2010; 117, 954-962. This is unacceptable and unethical.</p> <p>Plagiarism issue: The copied words are highlighted in yellow: Green words are reworded, but very close to being copied: For instance, in order of highlighted green words, I say “pregnant women” and they say “Women that are pregnant” I say “falls” and they say “collapses” I say “decreased” and they say “reduced” I say “altered” and they say “changed”, I say “women” and they say “ladies”, etc. They words are either identical to mine or practically identical to mine.</p> <p>Pregnancy is a strange health condition, seen as physiological process, which include sequential modification on the bodily organs along with corporal systems of women [1]. Women that are pregnant undergo numerous anatomical, physiological, and hormonal changes [2], which could lead to</p>	
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	<p>musculoskeletal complaints, in addition to impacting the pregnant woman's balance [3,4]. The effect of pregnancy on the musculoskeletal system results in modifications of the static posture of women, which may impair their everyday tasks and increase the risk of falls[2], which occur within 25% of pregnant women [5]. Pregnancy-related collapses are generally common. In general, pregnant women fall at a similar rate (27%) to women older than 70 years (28%). collapses are the leading cause of emergency department, hospital admissions in pregnancy[2]. Women that are pregnant encounter a substantial weight gain, an anterior shift in the location of the centre of mass, increased ligamentous laxity, reduced neuromuscular control as well as coordination, changed biomechanics, reduced abdominal muscle strength, increased spinal lordosis, and changes in mechanical loading and joint kinetics [6]. Many of these postural alternations can produce overloads in the main joints as well as results in musculoskeletal discomfort and pain symptoms. This change can increase the risk of collapses¹. Numerous investigators have examined different aspects connected with postural stability during maternity. Jang et al.[7] found greater anterior-posterior and radial sway, no change in medial-lateral sway, and a wider preferred stance breadth in pregnant women during quiet stance in comparison to non-pregnant ladies. Oliveira et al.[8] assessed changes in body sway during maternity by stabilogram and observed a decrease in postural balance in situations of a diminished support base or with eyes closed. Ribas and Guirro [9] analyzed plantar pressure and postural stability during the three trimesters of maternity and found a substantial decrease with postural stability within the final trimester, linked to higher anterior-posterior displacement during this time period. Butler et</p>	
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	<p>al.[5] concluded that postural stability declines progressively in the course of maternity and remains diminished at 6 to 8 weeks after delivery. This particular research furthermore suggested that there is an increased dependency on visual cues to keep stability in the course of maternity. Thus, the results involving pregnancy about the musculoskeletal system result in great modifications in static and dynamic posture for females. The 36 maintenance of postural stability in the standing position is a complex undertaking and, in spite of being popular with lifestyle and throughout pregnancy, the woman's body seems to have already changed the postural control that during the last trimester, there is a tendency to reduce the postural steadiness [10]. However, few studies assessed modifications with postural control throughout pregnancy. The purpose of that study was to evaluate the postural equilibrium throughout different phases of pregnancy. The outcomes obtained may improve health care intervention in the adaptive musculoskeletal modifications and their outcomes over the gestational time period.</p> <p>2. MATERIAL AND METHODS</p> <p>Study design and sampling following the hospitals ethical committee approved the study at the obstetric department (Antenatal Clinic) of the Kafrelsheikh general hospital. Experimental procedures were explained to each pregnant participant and written informed consent was obtained from the subjects (31 pregnant women). This study was done in Biomechanics lab. in Faculty of Physical Education at Kafrelsheikh University from February 2015 to July 2015. The gestational age during the subjects' first data collection session was occurring during their second trimester at 20-24 weeks. Their second visit</p>	
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	<p>occurred during the middle their third trimester at 30-34 weeks. 17 subjects did not complete the second visit because of: a decision to withdraw from the study (n = 10), delivery of the baby prior to 30 weeks (n = 1), pre-eclampsia or other complications in their pregnancy (n = 1), injuries sustained from a fall required the subject to be placed on bed rest (n = 2), being overweight (n=2) and relocation to another governorate (n = 1). The inclusion criteria were maternal age between 25 and 30 years, low risk pregnancy, single fetus, primigravid, high school graduated, body mass index (BMI) would not exceed 30 kg/m². Potential participants who were pregnant were excluded from the study if they were less than 20th week of pregnancy, were carrying more than one fetus, or if they had a history of any of the following: gestational diabetes, pre-eclampsia, toxemia, gestational hypertension, previous abortion, or if they were considered by their obstetrician to have a high-risk pregnancy. Potential pregnant participants were excluded if they had a history of type-I or -II diabetes, or any other condition that could affect sensation, a leg or foot fracture and ankle or knee sprain within the last year, current back or knee pain. Subjects were also excluded if they were a current smoker or if they currently took any medication that would affect their ability to balance. The design of this study was a case control study. The dynamic balance parameters (Anterior posterior (AP), Mediolateral (ML) and Overall (OA) stability indices) measured by the Biodex Balance System, It is a balance screening and training tool Biodex Medical System (Inc, Shirley New York, U.S.A). It consists of a movable balance platform, which provides up to 20 degrees of surface tilt in 360° 70 range. The stability levels available in the system range from a completely firm surface (Stability level-8) to a very unstable surface (Stability level-1) [10]. The</p>	
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	<p>biodex balance assessment was performed in standing position. The pregnant participants were instructed to focus on the visual feedback screen directly in front of the patient and attempt to maintain the cursor at the center of the screen while standing on the unstable platform (either stability level -8 and 7). Statistical Analysis: Means and standard deviations were calculated for each variable using descriptive statistics. The paired t - test was used to analyze and compare the gained results within each phase of pregnancy (2nd & 3rd trimester) and Independent t-test was carried out to assess differences in the balance parameters between the second and third trimester. A P-value of < .05 was taken to represent statistical significance. Data analysis was performed using SPSS software version 18.</p>	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

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