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EDITORIAL

TAILORED EXERCISES PROGRAM - CONCEPT OF EXERCISES AS MEDICINE

Exercises programs that are customized and tailored according to the need of the individual is the focus of various international organizations. Today the concept of long and continuous form of exercises has seen a paradigm shift towards the concept of exercises as medicine where health care professional are focusing towards designing and prescribing exercises that fits the need of individual and that could be discontinued once the desired goals are achieved. Evidences in favor of tailored exercises programs have further strengthen this concept where various literatures have suggested that customized and tailored exercise programs does not only provides short term benefits but certainly found to be helpful in improving agility, cardiovascular fitness, lung compliance, weight management and improving social life in long run as well.

Multiple evidences related to the effectiveness of prescribing exercises for achieving the short term and long term benefits in the management of various medical conditions has been well documented in numbers of literatures however very few literatures are available that have focused towards the concept of prescribing exercises in term of its dosage and have calculated the potency of particular exercise regime with respect to a particular program.

A very common problem that have been faced by the researcher to identify the dosage of exercises for the purpose of calculating its efficacy and cause effective relationship in response to the disease is the quantification of exercises. Previously exercises have been considered as a qualitative entity that was difficult to measured but with the advancement of research and evidence based practices various protocols and measures have been introduced for the purpose of the quantification of exercises that are workable not only for calculating the prescribed dosage but indeed are effective in measuring the potency of exercise

Researches in these days are required to conduct studies that not only focus towards identifying the effectiveness of exercises in response to the disease but must incorporate a strategy to calculate the dose response of exercises so that future studies and clinical practices could be tailored down up to the point where the maximum benefit can be achieved in a shorter duration of time that could turn to be a win- win situation for both the patient and the clinician.

Lastly the concept of dose response curve is required to be well understood before conducting the research on a large scale as plotting these curve required immense clerical work and recording of huge data that should be carefully published so that future studies with the same result could make the methodology and the result generalized at a larger scale.

Ali Farhad

Assistant Professor
Ziauddin College of Rehabilitation Sciences
Ziauddin University

LETTER TO THE EDITOR

AQUATIC PHYSICAL THERAPY FOR THE MANAGEMENT OF GESTATIONAL DIABETES- A NEED FOR LOW INCOME REGIONS OF PAKISTAN

Gestational diabetes is increasing globally with the rise in obesity and type II diabetes 1. Gestational diabetes is also intensifying among the Pakistani population. Although no significant data regarding the prevalence of GDM is available in Pakistan, one of the reports suggested approximately 6.5% GDM incidence 2. This imposed a huge economic burden as the treatment approaches are costly and jeopardizing maternal and fetal health.

In this situation where the conventional approaches of treatment are beyond the means of general population, alternate management approaches like general exercises strategies, walking, cycling, yoga and aquatic physical therapy could turn out to be beneficial in terms of cost effectiveness.

Generally, females with no such obstetric problem are encouraged to perform exercises during pregnancy; the mode of aquatic physical therapy is likewise another important strategy that could turn out to be beneficial for women with gestational diabetes along with additional benefits of alleviating maternal stress, decreases edema, back pain and controlling blood pressure 3-4.

It is therefore by the virtue of your prestigious Journal, I would like to draw your kind attention towards the concept of Aquatic Physical Therapy management strategy for gestational diabetic patient as in Pakistan very few Physical Therapy setups are providing hydrotherapy services which are limited for patients other than Gynae Rehab as the studies of its effectiveness are insufficient.

Hence, taking it as an obligation I entreated that emphasis should be given towards more extensive research on aquatic based exercises therapies at Gynae Rehab to bridge the gap in literature and more insight on the question of aquatic physical therapy effectiveness could be answered.

Mubarra Rao

Student MPhil in Physical Therapy
Ziauddin College of Rehabilitation Sciences
Ziauddin University

REFERENCES

- [1] Veeraswamy S, Vijayam B, Gupta VK, Kapur A. Gestational diabetes: the public health relevance and approach. *Diabetes Res ClinPract.* 2012; 97:350–358.
- [2] Fatima SS, Rehman R, Alam F, Madhani S, Chaudhry B, Khan TA. Gestational diabetes mellitus and the predisposing factors. *J Pak Med Assoc.* 2017 ;67(2):261-5.
- [3] Barakat R, Cordero Y, Coteron J, Luaces M, Montejo R: Exercise during pregnancy improves maternal glucose screen at 24–28 weeks: a randomised controlled trial. *Br J Sports Med.* 2012; 46:656–661.
- [4] Barros MC, Lopes MAB, Francisco RPV, et al. Resistance exercise and glycemic control in women with gestational diabetes mellitus. *Am J Obstet Gynecol.* 2010; 203:556.