44 - INDOOR CYCLING IMPLEMENTED ON GYMS: INFLUENCE OF PLANNING AND INJURIES FROM THE SPORT

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INTRODUCTION

Indoor cycling is a modality where the practitioner performs an activity about a bike park, with resistance (generating a load of exercise) that can promote health and has been increasingly expanding in the world. It is being held, mostly on the gymsa and in other spaces that allow the practice of the sport. By the researchers ' experience much of what has been presented in the academies is very reasoned and not standardized, and may generate a number of risks of injury to the practitioner during the activity. Focusing on these aspects, this article proposes to deepen more in the foundations of practice through a bibliographical revision, thus assisting the physical education professionals to pursue a job with greater excellence, watching loads of training and planning of classes and protecting the practitioners of injuries that may occur without proper professional attention.

1. ORIGINS OF INDOOR CYCLING

In mid-1987 an American cyclist named Johnny Goldberg (Johnny "G") in certain periods of the year couldn't fulfill their cycling training due to some problems, as the climate for example, decides to use his bike over a roll of equilibrium (in which equipment can ride a bike "stopped") in your House and after a while decided to add music to your workouts and was aware that it was a very good aerobic activity. So based on your experience created the first bicycle park and named "Spinner". From that with the creation of the equipment and with his experience as a professional cyclist has developed the first indoor cycling program, called "Spinning". Since the creation of the sport she has spread around the world and are designed several other programs produced by other manufacturers of stationary bikes to practice the sport.

2. PLANNING OF TRAINING AND KIND OF CLASSES

Through our research the prevailing method containing a physiologically based structuring is the model of periodization of Dantas (1998) quoted by Sousa et al (2010), which was to seek and ensure an organic and psychological development of the student, through the individual metabolic overload, elevation of gradual enrichment of the sum of motor actions and the assimilation of the specific motor gesture. According to Sousa et al. (2010) the proposal for a non-linear periodization applied to indoor cycling (PPNL) presents characteristics of a Basic Mesocycle (4 weeks), and 1-Incorporative;2-Ordinary; 1-shock, i.e. 25% with recover features, 50% of school of moderate intensity and 25% with high intensity domain. We believe that this kind of planning by performing a review, it might be interesting to application because it provides a longer period for the adaptation of the practitioners, which may decrease the rejection due to the difficulty of adaptation in the weeks in which the intensity and physiological demand are higher. This period in question, propitious for the introduction and initiation mode, is during the first two weeks of planning, where the practitioner is in a process of adjusting the bike park and also positive physiological adaptations in the body. Sousa et al (2010) confirms and exemplifies in his article:

> "Week 01 (Microcycle Incorporative)-appropriate time for the start of practice; period of adjustment to the bike clutch-fixed; teacher's instruction to beginner on the generalities of the sport; the beginner will remain in the technique in his plane sat on the first week. Week 02 (Regular Microcycle)-2° time for initiation; 2nd period of adaptation to implement; increase in intensity; the professional will evaluate if the beginner presents conditions of pedaling standing up; integration of class types: Force resistance and Interval. Week 03 (Regular Microcycle)-start of advanced techniques, such as jumping and sprint; Beginners remain contained in relation to the intensity and advanced techniques;intermediate intensity, due to the intense workouts are dosed with a necessary recovery. Week 04 (shock Microcycle)-most intense week of the cycle; the student should receive instruction on how to be the class, and this must be in full physical and mental conditions; using the most advanced techniques and exercises and intense; little recovery time; need for long periods of heating and back calm; students in their 1st mesocycle continue suffering restrictions, being prohibited the implementation of advanced techniques and high intensities. "(SOUSA et al. 2010, p. 2)

In relation to planning cited by Sousa et al (2010) in his article, 6 different types were created, each with their different physiological characteristics to conform in the weeks of planning, which are: 1. recovery (aerobic 1) – aimed at a session with low intensity, recovery after 4 weeks of planning. Heart rate (HR) from 60% to 75% of the FCmáx; 2. Endurance (aerobic 2) – where the practitioner must maintain the same intensity of activity throughout the school and predominance of the aerobic metabolism. Uphill can be added as long as they don't exceed the FC determined that is 65% to 75% of the FCmáx; 3. Force resistance (continuous Intensive) – determined as a school where high loads are used in addition to advanced techniques, developing muscular endurance, cadence and consequently a better cardiovascular conditioning factors that support high intensity working on aerobic and anaerobic. FC is 75% to 85% of FCmáx; 4. Aerobic Intermittent (1 Intermittent)-is characterized as a mixed class where develops speed, pace and power, and this training aims to increase the tolerance for stimuli with moderate intensity, there must be "peaks" of intensity up to 80% with the recovery 65-75%; 5. Anaerobic Intermittent (Intermittent 2) – as the intermittent aerobic class (1 Intermittent), is characterized as a workout to develop speed, pace and power but requires a better cardiovascular capacity on the part of practitioners. The "peaks" of intensity are 80% and 92% interspersed with 65% recovery; 6. Tolerance Lactic (time trial) – is considered the most intense class where practitioner should be prepared both physically and psychologically, as it is a continuous high intensity training with FC of 80% to 92% of the FCmáx and has a broad recovery period at the end. A field research was carried out by the authors of the article with 60 practitioners of indoor cycling, being 22 men and 38 women with an average age of 30.5 years and done through a questionnaire called "Form about information and adherence to indoor cycling" (FIACI), comprised of 09 open and closed issues. Concluding that the proposed model of planning contributed to the adherence to indoor cycling classes.

3. INCIDENCE OF INJURIES RELATED TO SPORT

Rienda et al. (2012) in the article "Prevalence of lesions in indoor cycling practitioners" proposes a research on injuries related to the practice of indoor cycling, using through a literature review and comparing it to other sports. The author works with other authors as Whitting and Zemickie (2001) and Mcginnins and Peter (2002) and CITES what is the lesion itself: "[...] the injury is a damage, caused by physical trauma to the tissues of the body or that inhibit the performance of the movement. " It is noticed that a lesion is detrimental to the practitioner of a physical activity dramatically reducing its performance and its performance, and also makes mention to what he believed to be causing the injuries:

> "[...] due to the interaction of extrinsic factors (training, planning, intensity of class, and equipment among other conditions) and intrinsic (age, sex, experience, aptitude, and other aspects) related to the practitioner and may be acute or arising from micro traumas applicants. " (RIENDA 2012 et al., p. 1)

In fact, the author believed that besides the own characteristics of the practitioner to influence directly in the index of injuries (some features may improve with practice and other features that are immutable) and others that are related to the very structure of the environment where the practice happens and also the intensity and type of class planned by professional of physical education. The author's goal with this article was to raise scientific data for professionals may have a basis for their indoor cycling classes, avoiding any kind of injury from her. To the data survey Rienda et al. (2012) used through a survey with a total of 150 individuals at the beginning, however, to the analysis of the data were used only 52 of those initials. The criteria used to filter were: individuals should be practitioners of indoor cycling, with only a weekly minimum frequency three times a week and for at least three months of practical, aged 18 years or more. According to the results shown by the analysis of data obtained by Rienda et al. (2012) the highest pain and/or discomfort in the upper limbs: "[...] was on lumbar and local muscles, followed by the head and face and cervical and upper trapezius [...] ". It's understandable these results because the practice of indoor cycling the posterior torso suffers enough stress, and about the highest pain and/or discomfort in the lower limbs: "[...] highest values were in the knees and leg, followed by hip and ankle and foot [...] ". It is expected that the highest rates of injuries will occur in the lower back and knees, which is reaffirmed by Rienda et al. (2012) in his article: "About the injuries themselves were the highest in the knees, followed by lumbar and local muscles". It is interesting to note the fact that Rienda et al. (2012) references other articles that are related to other sports and carries out comparisons of the rate of injuries of these sports with the indoor cycling and we believe greater magnitude of injury in each mode comes from the higher level of demand for a particular muscle group or body segment and the author arrives at that conclusion confirming this fact:

> "[...]According to each sport, the level of movement of the body segment requirement or anatomical region in each sport, it turns out that the prevalence of lesions in these places becomes increased. " (RIENDA 2012 et al., p. 5)

In conclusion the article, Rienda et al. (2012) reports that:

> "[...] the most common injuries are in the lower back and knees and legs, which can be explained by the fact the posture to be based on the bike saddle to be erroneous, which can promote an excessive load on the lumbar region and of this activity requires greater movement in the knee joint during pedaling. " (RIENDA et al. (2012), p. 5)

CONCLUSION

We conclude that the proposed planning methodology by SOUSA et al (2010) may be the best for application in environments of health promotion, such as academies or Club, due to the results presented in his article with planning implemented to an Academy was completed greater satisfaction from both the student in achieving its results, motivation to modality and as for the physical education professional to have a planning directing him to assist his students how to reach a goal without the occurrence of injuries, as discussed by Rienda et al (2012), demonstrating what is the highest percentage of injuries caused by sport. Must still be carried out other polls giving more emphasis on issues of injuries arising from the mode and other factors that may influence the practice of the sport and getting results.

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INDOOR CYCLING IMPLEMENTED ON GYMS: INFLUENCE OF PLANNING AND INJURIES FROM THE SPORT

ABSTRACT

Modality created by a biker named Johnny Goldberg who by some factors such as the weather couldn't make their workouts on the street created a bicycle park that after a certain period of time became world-famous in academies around the world. However no standardization or substantiation of the modality. Through our research the prevailing method containing a physiologically based structuring is the model of periodization of Dantas (1998) quoted by SOUSA et al (2010), and we believe this may be planning which provides a period for adaptation of the practitioner mode, and thus decrease the rejection mode and also helping the practitioner to reach their goals. Rienda et al. (2012) found in his research that the most common injuries are in the lower back and knees and legs, which can be explained by the fact the posture to be based on the bike saddle to be erroneous, which can promote an excessive load on the lumbar region and of this activity requires greater movement in the knee joint during pedaling and as completion of your research it was found that most of the injuries are from a bad fit of the saddle (seat) of the bike.

In conclusion our review we propose to be used the periodization proposed by SOUSA et al (2010), because it was proven through his research its satisfactory results in health-promoting environments and can also be proposed that the physical education professionals have greater attention in relation to the adjustment of the saddle, as was done through research of Rienda et al. (2012).

KEYWORDS: Indoor cycling. Injuries on the gyms. Planning.

CYCLISME EN SALLE DE MISE EN ŒUVRE DE LA ACADAMIAS : INFLUENCE DE LA PLANIFICATION ET DES BLESSURES CAUSÉES PAR LE SPORT

RÉSUMÉ

Modalité créée par un biker nommé Johnny Goldberg qui, par certains facteurs tels que la météo n'a pas pu faire leurs séances d'entraînement sur la rue créé un parc de vélos qui après qu'une certaine période de temps est devenu célèbre dans les académies dans le monde entier. Cependant aucune normalisation ou la justification de la modalité. Par le biais de notre recherche la méthode dominante contenant qu'une structuration base physiologique est le modèle de la périodisation de Dantas (1998) cité par Sousa et al (2010), et nous pensons que cela peut être qui prévoit une période d'adaptation du mode professionnel de la planification et donc diminuer le mode de rejet et en aidant le praticien à atteindre leurs objectifs. Rienda et coll. (2012), dans ses recherches que les blessures les plus courantes sont dans le bas du dos et les genoux et les jambes, ce qui peuvent s'expliquer par le fait que la posture reposer sur la selle de vélo est erronée, ce qui peut favoriser une charge excessive sur la colonne lombaire et de cette activité nécessite une plus grande circulation dans l'articulation pendant le pédalage et achèvement de vos recherches, qu'il a été constaté que la plupart des blessures sontd'un mauvais ajustement de la selle (siège) de la moto. Pour terminer notre examen, nous vous proposons d'être utilisé la périodisation proposée par Sousa et al (2010), parce qu'il a été prouvé par le biais de ses recherches, ses résultats satisfaisants dans la promotion de la santé environnementale et peut également être proposé que les professionnels de l'éducation physique ont une plus grande attention en ce qui concerne l'ajustement de la selle, comme cela a été fait grâce à la recherche de Rienda et al., (2012).

MOTS-CLÉS: cyclisme en salle. Blessures dans le milieu universitaire. Planification.

CICLISMO INDOOR MEDIANTE LA IMPLEMENTACIÓN DE LA ACADAMIAS: INFLUENCIA DE LA PLANIFICACIÓN Y LAS LESIONES DEL DEPORTE

RESUMEN

Modalidad creada por un motociclista llamado a Johnny Goldberg que por algunos factores como el clima no pudo realizar sus entrenamientos en la calle creó un parque de bicicletas después de un cierto periodo de tiempo se hizo mundialmente famoso en academias de todo el mundo. Sin embargo ninguna normalización o justificación de la modalidad. A través de nuestra investigación el método predominante contiene que una estructuración fisiológicamente basado es el modelo de periodización de Dantas (1998) citado por Sousa et al (2010), y creemos que esto puede que proporciona un período de adaptación del modo practicante planificación y disminuir así el modo de rechazo y también ayudar al practicante a alcanzar sus metas.Rienda et al (2012) encontró en su investigación que las lesiones más comunes en la zona lumbar y las rodillas y las piernas, que pueden explicarse por el hecho de la postura que basarse en el sillín de bicicleta a ser erróneas, que puede promover una carga excesiva en la región lumbar y esta actividad requiere mayor movimiento en la articulación durante el pedaleo y como culminación de su investigación se encontró que la mayoría de las lesiones sonde un mal ajuste de la cejuela (asiento) de la moto. En conclusión nuestra revisión nos proponemos ser utilizado la periodización propuesta por Sousa et al (2010), porque a través de su investigación fue probado sus resultados satisfactorios en entornos de promoción de la salud y pueden también ser propuso que los profesionales de la educación física tienen una mayor atención en relación con el ajuste de la cejuela, como se ha hecho mediante la investigación de Rienda et al., (2012).

PALABRAS CLAVE: ciclismo Indoor. Lesiones en el ámbito académico. Planificación.

CICLISMO INDOOR IMPLEMENTANDO AS ACADAMIAS: INFLUÊNCIA DO PLANEJAMENTO E LESÕES PROVENIENTES DA MODALIDADE

RESUMO

Modalidade criada por um ciclista chamado Johnny Goldberg que por alguns fatores como clima não podia realizar seus treinos na rua criou uma bicicleta estacionaria que após um certo período de tempo se tornaria mundialmente famosa em academias espalhadas pelo mundo todo. Entretanto sem padronização ou fundamentação da modalidade. Através de nossas pesquisas o método que prevalece contendo uma estruturação fundamentada fisiologicamente é o modelo de periodização de Dantas(1998) citado por Sousa et al(2010), e acreditamos que este planejamento pode ser o que propicia um período para adaptação do praticante a modalidade, podendo assim diminuir a rejeição a modalidade e também auxiliando o praticante a alcançar suas metas. Rienda et al. (2012) constatou em sua pesquisa que as lesões mais frequentes são na região lombar e nos joelhos e pernas, o que pode ser explicado pelo fato da postura ao assentar sobre o selim da bicicleta estar errônea, o que pode promover uma carga excessiva na região lombar e de esta atividade requerer uma maior movimentação na articulação do joelho no momento da pedalada e como conclusão de sua pesquisa foi constatado que grande parte das lesões são provenientes de um mal ajuste do selim (banco) da bicicleta. Em conclusão a nossa revisão bibliográfica propomos que seja usada a periodização proposta por Sousa et al (2010), pois foi comprovado através de sua pesquisa seus resultados satisfatórios em ambientes de promoção a saúde e também pode ser proposto que os profissionais de Educação Física tenham uma maior atenção em relação ao ajuste do selim, como foi concluído através da pesquisa de Rienda et al (2012).

PALAVRAS-CHAVE: Ciclismo Indoor. Lesões em Academias. Planejamento.