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| № | Source (PT) | Target (EN) | **GOOGLE** |
| 1 | INFLUÊNCIA DO TEMPO DE PRÁTICA SOBRE AS LESÕES DECORRENTES DO SURF | INFLUENCE OF TIME OF PRACTICE OVER LESIONS CAUSED BY SURFING  INFLUENCE OF PRACTICE TIME ON SURFING INJURIES | **INFLUENCE OF PRACTICE TIME ON SURFACTING INJURIES** |
| 2 | Influence of the time practice over lesions caused by surfing | Influence of the time of practice over lesions caused by surfing | *Influence of the practice on injuries caused by surfing* |
| 3 | RESUMO | ABSTRACT | **ABSTRACT** |
| 4 | Introdução: estudar a influência da prática de surf sobre a prevalência de lesões pode contribuir para sua prevenção. | Introduction: Study the influence of surfing on the prevalence of injuries, which can contribute to prevention. | **Introduction:** To study the influence of surfing practice on the prevalence of injuries can contribute to prevention. |
| 5 | Objetivo: analisar a influência do tempo de prática esportiva e realização de cirurgia prévia sobre o perfil e prevalência das lesões decorrentes do surf. | Objective: to analyze the influence of time of practice in sports and the effects of previous surgery on the profile and prevalence of injuries caused by surfing. | **Objective:** To analyze the influence of sports practice time and realization of previous surgery on the profile and the prevalence of injuries arising from the surf. |
| 6 | Métodos: Participaram 66 surfistas brasileiros (26,16±0,73 anos). | Methods: Participants, 66 Brazilian surfers (26.16 ± 0.73 years).  66 Brazilian surfers (26.16 ± 0.73 years) participated in this study. | **Methods:** Participants 66 Brazilian surfers (26.16 ± 0.73 years). |
| 7 | Foram avaliados os dados antropométricos, o nível de atividade física, o tempo de prática de surf e a prevalência de lesões (tipo de lesão, região anatômica acometida e o mecanismo de lesão). | Anthropometric data,, the level of physical activity, the time of surfing and the prevalence of lesions (type of injury, anatomical region involved and the mechanism of injury), were evaluated. | The anthropometric data, physical activity level, surfing time and the prevalence of injuries (type of injury, anatomical region affected and mechanism of injury) were evaluated. |
| 8 | Para avaliar quais das variáveis estudadas exerciam influência significativa na média de lesões foi ajustado um modelo log-linear de Poisson por meio do software R (p<0,05). | To assess which of the studied variables exerted significant influence on average occurrence of injury wasa Poisson’s log-linear model was adjusted through software R (p < 0.05). | To evaluate which of the variables exert a significant influence on the average lesions was adjusted a log-linear model Poisson through *software* R (p <0.05). |
| 9 | Resultados: A maior parte dos surfistas foi classificada como eutróficos (73%), muito ativos (60,6%), tempo médio de prática de 10,1±1 anos e não federados (74%). | Results: Most surfers were classified as eutrophic (73%), very active (60.6%), not affiliated with any surf federation, and had an average time of practice of 10.1 ± 1 years | **Results:** The majority of surfers was classified as eutrophic (73%), very active (60.6%), average circulation time of 10.1 ± 1 years and unfederated (74%). |
| 10 | Foi observado que 90,9% dos participantes reportaram lesões decorrentes do surf, sendo que 44,9% destas lesões acometeram os membros inferiores e a maioria atingiu o sistema tegumentar (46,6%). | Also, it was observed that 90.9% of participants reported lesions caused by surfing, in which 44.9% of these injuries affected the lower limbs and the majority reached the integumentary system (46.6%). | It was observed that 90.9% of the participants reported lesions due to surfing, 44.9% of these injuries affected the lower limbs and the majority reached the integumentary system (46.6%). |
| 11 | O principal mecanismo de lesão foi o choque com prancha/fundo do mar (40,4%). | The main lesion mechanism was shock with the board or with the seabed (40.4%). | The main mechanism of injury was the plank / seabed clash (40.4%). |
| 12 | Ainda, verificou-se que surfistas federados apresentaram média estimada de lesões 58,4% maior que os não federados (p=0,007). | Furthermore, it was found that federated surfers presented an estimated average of 58.4 percent more injuries than unfederated ones(p = 0.007). | Further, it was found that surfers presented federated estimated average 58.4% higher than non - federated lesions *(p = 0.007).* |
| 13 | Surfistas submetidos a cirurgias prévias apresentaram média estimada de lesões 56,9% maior que os demais (p=0,012). | urfers who had undergone previous surgeries showed an estimated injury average 56.9% higher than the other surfers (p = 0.012). | Surfers undergone previous surgery showed estimated average 56.9% higher than the other lesions *(p = 0.012).* |
| 14 | Além disso, constatou-se que para cada ano a mais de prática de surf, a média estimada de lesões cresceu 2,5% (p=0,0118). | In addition, it was found that for each extra year of surfing, the estimated injury average increased by 2.5% (p = 0.0118). | *Furthermore,* it was found that for each year over the *surf* practice, the estimated average lesions increased by 2.5% *(p = 0.0118).* |
| 15 | Conclusão: A média estimada de lesões dos surfistas aumentou com o incremento(?) do tempo de prática, realização de cirurgia pregressa e estar federado. | Conclusion: The surfers' estimated injury average increased with the increment in surfing experience, occurrence of previous surgery and being federated. | **Conclusion:** The estimated average surfers injury increased with increase in circulation time, previous surgery and performing be federated. |
| 16 | Palavras-chave: lesões em atletas, prevalência, medicina esportiva. | Keywords: injuries in athletes, prevalence, sports medicine. | **Keywords:** injuries in athletes, prevalence, sports medicine. |
| 17 | ABSTRACT | ABSTRACT | **ABSTRACT** |
| 18 | Introduction: To study the influence of surfing practice on the prevalence of injuries may contribute to its prevention. | Introduction: To study the influence of surfing on the prevalence of lesions may contribute to injury prevention. | **Introduction:** To study the influence of surfing practice on the prevalence of injuries may Contribute to its prevention. |
| 19 | Objective: To analyze the influence of sports practice time and performance of previous surgery on the characterization and prevalence of surfing injuries. | Objective: To analyze the influence of sports activity and the occurrence of previous surgery on the profiling and prevalence of injuries caused by the sport. | **Objective:** To analyze the influence of sports practice and team performance of previous surgery on the characterization and prevalence of surfing injuries. |
| 20 | Methods: Participants were 66 Brazilian surfers (26.16 ± 0.73 years). | Methods: 66 Brazilian surfers (26.16 ± 0.73 years) participated. | **Methods:** Participants Were Brazilian surfers 66 (26.16 ± 0.73 years). |
| 21 | We evaluated the datas demographics, the level of physical activity, the surf practice time and the prevalence of lesions (type of injury, affected anatomical region and the mechanism of injury). | The anthropometric data, physical activity level, surfing experience and prevalence of injuries (type of injury, anatomical region affected and the mechanism of injury) were evaluated. | We evaluated the dates demographics, the level of physical activity, the surfing practice time and the prevalence of injuries (type of injury, affected anatomical region and the mechanism of injury).(P <0.05). |
| 22 | To evaluate which of the variables exert a significant influence on the average lesions was adjusted a log-linear Poisson model by means of software R (p <0.05). | To assess which of the studied variables exerted significant influence on the average number of lesions a log-linear Poisson model was adjusted through software R (p < 0.05). | The results of this study are presented in Table 1 and Table 2. |
| 23 | Results: Most of the surfers was classified as eutrophic (73%), very active (60.6%), average practice time of 10.1 ± 1 years and not federal (74%). | Results: The majority of surfers were classified as eutrophic (73%), very active (60.6%), with an average surfing experience time of 10.1 ± 1 years and not federated(74%). | **Results:** Most of the surfers was classified to eutrophic (73%), very active (60.6%), average driving time of 10.1 ± 1 years and not federal (74%). |
| 24 | It was observed that 90.9% of participants reported injuries from the surf, and 44.9% of injuries affected the lower limbs and the majority reached the integumentary system (46.6%). | It was observed that 90.9% of participants reported injuries due to surfing, 44.9% of which affected the lower limbs and the majority of these reached the integumentary system (46.6%). | It was observed that 90.9% of participants reported injuries from the surf, and 44.9% of injuries affected the lower limbs and the majority reached the integumentary system (46.6%). |
| 25 | The main mechanism of injury was collision with surfboard / seabed (40.4%). | The main mechanism of injury was impact with the surfboard/seabed (40.4%). | The main mechanism of injury was collision with surfboard / seabed (40.4%). |
| 26 | Further, it was found that surfers presented federated estimated average 58.4% higher than non-federated lesions (p=0.007). | Further, it was found that federated surfers presented an estimated average of 58.4% more injuries than unfederated ones (p = 0.007). | Further, it was found that surfers presented federated estimated average 58.4% higher than non-federated lesions (p = 0.007). |
| 27 | Surfers undergone previous surgery had estimated average of 56.9% more injuries than the others (p=.012). | Surfers who had undergone previous surgeries showed an estimated injury average 56.9% higher than the other surfers (p = 0.012). | Surfers undergone previous surgery had an average of 56.9% more injuries than the others (p = .012). |
| 28 | Furthermore, it was found that for each additional year of surf practice, the estimated average lesions increased by 2.5% (p=0.0118). | In addition, it was found that for each extra year of surfing, the estimated injury average increased by 2.5% (p = 0.0118). | Furthermore, it was found that for each additional year of surfing practice, the estimated average lesions increased by 2.5% (p = 0.0118). |
| 29 | Conclusion: The average estimated surfers injuries increased with the increase in practice time, performance of previous surgery and to be federated. | Conclusion: The surfers' estimated injury average increased with the increment in surfing experience, occurrence of previous surgery and being federated. | **Conclusion:** The average estimated surfers injuries Increased with the Increase in practice team, performance of previous surgery and to be federated. |
| 30 | Keywords: athletic injuries, prevalence, sports medicine. | Keywords: athletic injuries, prevalence, sports medicine. | **Keywords:** athletic injuries, prevalence, sports medicine. |
| 31 | INTRODUÇÃO | INTRODUCTION | **INTRODUCTION** |
| 32 | Nos últimos anos têm aumentado o número de praticantes de surf, tornando-se um esporte popular no mundo todo (1, 2, 3). | In recent years the number of surfers has increased, making it a popular sport worldwide (1, 2, 3). | In recent years they have increased the number of *surfers,* becoming a popular sport worldwide (1, 2, 3). |
| 33 | De acordo com a International Surfing Association estima-se que no planeta existam aproximadamente 35 milhões de surfistas(4). | According to the International Surfing Association, it is estimated that there are approximately 35 million surfers on the planet (4). | According to the *International Surfing Association* estimated that in the world there are approximately 35 million surfers (4). |
| 34 | No Brasil a estimativa é que 1,3% da população entre 14 e 75 anos de idade pratica a modalidade, ou seja, cerca de 1,9 milhões de surfistas (5). | In Brazil, the estimate is that 1.3% of the population between 14 and 75 years old is actively involved in this sport, around 1,9 million surfers (5). | In Brazil the estimate is that 1.3% of the population between 14 and 75 years of age practices the sport, that is, about 1.9 million surfers (5). |
| 35 | No entanto, apesar de se tornar bastante popular, a literatura científica sobre a modalidade ainda é escassa (1), especialmente no que tange a prevalência de lesões (6, 7, 8). | However, despite becoming very popular, scientific literature about the sport is still scarce (1), especially regarding the prevalence of lesions (6, 7, 8). | However, although it is becoming very popular, the scientific literature on the modality is still scarce (1), especially with regard to the prevalence of lesions (6, 7, 8). |
| 36 | O desenvolvimento de pranchas e quilhas com melhor hidrodinâmica, propiciam manobras cada vez mais velozes e complexas, acompanhadas por maior demanda física, fisiológica e técnica, as quais podem ter contribuído para o aumento da incidência de lesões em surfistas (7, 8). | The development of boards and keels with improved hydrodynamics allows for increasingly faster and more complex maneuvers, accompanied by greater physical, physiological and technical demand, which may have contributed to the increased incidence of injuries in surfers (7, 8). | The development of boards and keels with better hydrodynamics, provide faster and more complex maneuvers, accompanied by greater physical, physiological and technical demand; Which may have contributed to the increase in the incidence of injuries in surfers (7, 8). |
| 37 | As lesões mais comuns no surf são as contusões e ferimentos por corte, seguido de entorses, estiramentos musculares, queimaduras e fraturas. | The most common lesions in surfing are bruises and injuries due to cuts, followed by sprains, muscle strains, burns/stings and fractures. | The most common injuries are injuries in *surfing* and injuries by cutting, followed by sprains, muscle strains, burns and fractures. |
| 38 | Além disso, estudos apontam que no surf, a maior parte das lesões, é de natureza traumática, e são principalmente decorrentes ao choque do surfista com a própria prancha ou com o fundo do mar, seguidas da execução de manobras sem êxito (7, 9). | In addition, studies show that in surfing most injuries are traumatic in nature, and are mainly caused by the impact of the surfer with his own board or with the bottom of the sea, following the unsuccessful execution of maneuvers (7, 9). | Furthermore, studies show that in the *surf,* most of the injuries is traumatic in nature, and are mainly due to the surfer's clash with own board or the bottom of the sea, followed by execution unsuccessful maneuvers (7, 9 ). |
| 39 | Em estudo com surfistas do litoral paranaense verificou-se que o tipo de lesão mais frequente foi a contusão em membros inferiores, decorrente do contato com a prancha, na categoria recreacional (10). | In a study with surfers from the coast of Paraná (Brazil), it was verified that the most frequent type of injury was contusion in the lower limbs due to contact with the board, in the recreational category (10). | In a study with surfers from the coast of Paraná, it was verified that the most frequent type of injury was the contusion in lower limbs, due to the contact with the board, in the recreational category (10). |
| 40 | No entanto, não foi investigado o nível de atividade física dos surfistas nem a influência do tempo de prática de surf sobre a prevalência das lesões. | However, the physical activity level of surfers or the influence of surfing time on the prevalence of lesions were not investigated. | However, it has not investigated the level of physical activity of surfers or *surf* the influence of practice time on the prevalence of injuries. |
| 41 | Portanto, o objetivo do presente estudo foi analisar o nível de atividade física e a influência do tempo de prática, em surfistas federados e que tenham sido submetidos à cirurgia prévia, sobre o perfil e a prevalência de lesões decorrentes do surf. | Therefore, the objective of the present study is to analyze the level of physical activity and the influence of time of practice on the profile and the prevalence of surf-related injuries among surfers who are federation members and have undergone previous surgery,. | Therefore, the aim of this study was to analyze the level of physical activity and the influence of practice time, be federated and have undergone previous surgery, on the profile and the prevalence of injuries arising from the *surf.* |
| 42 | MATERIAL E MÉTODOS | MATERIAL AND METHODS | **MATERIAL AND METHODS** |
| 43 | Trata-se de um estudo analítico observacional de corte transversal (13), aprovado pelo Comitê de Ética em pesquisa do Setor de Ciências da Saúde da Universidade Federal do Paraná (Parecer 335.941), que seguiu a Resolução 466/12 do Conselho Nacional de Saúde e foi inscrito no Registro Brasileiro de Ensaios Clínicos (RBR-752vkn). | This is an observational cross-sectional analytical study (13), approved by the Research Ethics Committeein the Health Sciences Sector of the Federal University of Paraná (335,941), which followe resolution 466/12 of the National Health Council and was registered in the Brazilian Registry of Clinical Trials (RBR-752vkn). | This is an observational cross-sectional analytical study (13), approved by the Research Ethics Committee of the Health Sciences Sector of the Federal University of Paraná (Opinion 335.941), followed Resolution 466/12 of the National Health and it was registered in the Brazilian registry of Clinical Trials (RBR-752vkn). |
| 44 | Todos os participantes foram informados dos procedimentos e deram o seu consentimento informado por escrito. | All participants were informed of the procedures and gave their informed consent in writing. | All participants were informed of the procedures and gave their informed consent in writing. |
| 45 | Para o cálculo amostral, assumiu-se a proporção de surfistas em 1,47% (7, 10) (2.803.770) do total da população brasileira (190.732.694), segundo dados Censo/IBGE 2010. | For the sample size calculation, the proportion of surfers was assumed to be 1.47% (7, 10) (2,803,770) of the total Brazilian population (190,732,694), according to the 2010 Census / IBGE data . | For the sample calculation, the proportion of surfers was assumed to be 1.47% (7, 10) (2.803.770) of the total Brazilian population (190,732,694), according to Census / IBGE 2010 data. |
| 46 | Foi utilizada a fórmula em (1), com intervalo de confiança de 95% e erro amostral de 3%: | We used the formula in (1), with a 95% confidence interval and sampling error of 3%: | 1), with 95% confidence interval and 3% sample error: |
| 47 | n = z2α/2 \* N\* P \* (1 - P) | n = z2α/2 \* N \* P \* (1-P) | z = α 2 n / 2 \* n \* p \* (1 - P) |
| 48 | ε2 \* (N-1) + z2α/2 \* (1- P) (1) | ε2 \* (N-1) + z2α/2 \* (1-P) (1) | 2 ε \* (N-1) 2 + z α / 2 \* (1-D) (1) |
| 49 | Onde: n - tamanho da amostra a ser calculada; z2α/2 - valor crítico para o grau de confiança desejado; N - tamanho populacional; P - proporção populacional de indivíduos praticantes de surf no Brasil; ε2:– erro amostral. | Where: n-sample size to be calculated; z2α/2-critical value for the desired confidence level; N-population size; P-proportion of individuals who practice surf in Brazil; ε2:-sampling error. | Where: n - sample size to be calculated; 2 z α / 2 - critical value for the desired confidence interval; N - population size; P - population *surfers* proportion of individuals in Brazil; ε 2: - sampling error. |
| 50 | Assumindo tais parâmetros, o resultado foi de 62 surfistas. | Assuming such parameters, the result was 62 surfers. | Assuming such parameters, the result was 62 surfers. |
| 51 | Desta forma, foram selecionados 66 surfistas do litoral do Paraná, praticantes de surf há pelo menos 6 meses, de ambos os sexos, com idade entre 18 e 42 anos. | Thus, 66 surfers in the coast of Paraná were selected. All of them surfing for at least 6 months, of both sexes, aged between 18 and 42 years. | In this way, 66 Paraná coast surfers, *surfers* for at least 6 months, of both sexes, aged between 18 and 42 years. |
| 52 | Os critérios de exclusão foram comorbidades neurológicas e vasculares periféricas. | Exclusion criteria were peripheral neurological and vascular comorbidities. | Exclusion criteria were peripheral neurological and vascular comorbidities. |
| 53 | Avaliação antropométrica | Anthropometric assessment | **Anthropometric evaluation** |
| 54 | A avaliação antropométrica foi obtida pela aferição da massa corporal (Kg) em balança digital Magna® e da estatura (cm) por meio de uma fita milimétrica fixada na parede, com extensão de 2 metros. | The anthropometric assessment was carried out through the measurement of body mass (Kg) on a Magna ® digital scale and height (cm) by using a 2-metre long measuring tape attached to the wall. | The anthropometric measurements was obtained by measuring the body weight (kg) scale digital Magna® and height (cm) by means of a millimetric tape attached to the wall, with a length of 2 meters. |
| 55 | O índice de massa corporal (IMC) foi obtido pela divisão da massa corporal pelo quadrado da estatura (Kg/m²) e classificado conforme o Ministério da Saúde (12) em baixo peso (menor que 18,5 Kg/m²), eutrófico (18,5 a 24,9Kg/m²), sobrepeso (25 a 29,9Kg/m²) e obeso (maior que 30,0Kg/m²). | The body mass index (BMI) was calculated by dividing the body mass by the square of the height (Kg/m ²) and classified according to the Ministry of Health (12) as underweight (less than 18.5 Kg/m ²), eutrophic (18.5 to 24.9 kg/m ²), overweight (25 to 29.9 kg/m ²) and obese (greater than 30.0 kg/m ²). | Body mass index (BMI) was obtained by dividing body mass by the square of height (Kg / m²) and classified according to the Ministry of Health (12) in low weight (less than 18.5 kg / m²), eutrophic ( 18.5 to 24.9 kg / m²), overweight (25 to 29.9 kg / m²) and obese (greater than 30.0 kg / m²). |
| 56 | Nível de atividade física (IPAQ– International Physical Activity Questionnaire - versão longa) | Physical Activity Level (IPAQ-International Physical Activity Questionnaire - long form) | **Physical activity (IPAQ- *International Physical Activity Questionnaire* - long version)** |
| 57 | O nível de atividade física foi avaliado pelo IPAQ versão longa, por meio de entrevista pessoal, validado no Brasil por Matsudo et al. (13). | The level of physical activity was measured through personal interview using the IPAQ long form, validated in Brazil by Matsudo et al. (13). | The level of physical activity was assessed by the IPAQ long version, through personal interview, validated in Brazil by Matsudo *et al.* (13). |
| 58 | O instrumento avaliou a intensidade da atividade (caminhada, atividade moderada e atividade vigorosa) e o tempo gasto ao realizá-las na semana que precedeu a avaliação, com questões referentes às atividades no trabalho e em casa, ao meio de transporte, ao lazer e ao tempo sentado (14). | The instrument assessed the intensity of the activity (walking, moderate and vigorous activity) and the time spent performing these activities in the week preceding the assessment.The questions were related to their activities at work and at home, means of transportation, leisure time and time spent sitting(14). | The instrument assessed the intensity of the activity (walking, moderate activity and vigorous activity) and time spent in the week preceding the evaluation, with questions related to work activities, at home, as a means of transportation, leisure and time (14). |
| 59 | Os resultados obtidos foram calculados em minutos por semana, seguindo as recomendações de procedimento propostas pelo IPAQ Core Group (15). | The results were calculated in minutes per week, following the recommendations of procedure proposed by the IPAQ Core Group (15). | The results were calculated in minutes per week, following the recommendations of procedure proposed by the *Core Group* IPAQ (15). |
| 60 | Assim, os indivíduos foram classificados, de acordo com os critérios de frequência e duração em: sedentários, insuficientemente ativos, ativos e muito ativos. | Thus, individuals were classified according to the criteria of frequency and duration as follows: sedentary, insufficiently active, active and very active. | Thus, individuals were classified, according to the criteria of frequency and duration in: sedentary, insufficiently active, active and very active. |
| 61 | Índice de prática de surf | The surf practice index | **Index practice *surfing*** |
| 62 | Cada participante foi entrevistado e relatou sua categoria no surf (amador, recreacional ou profissional), o tempo de prática do esporte (em anos), a frequência semanal (número de dias) e a quantidade de horas diárias de prática. | Each participant was interviewed and reported their surfing category (amateur, recreational or professional), the time of practice of the sport (in years), the weekly frequency of practice (number of days) and the number of hours of daily practice. | Each participant was interviewed and reported its kind in the *surf* (amateur, recreational or professional), the sport of practice time (in years), the weekly frequency (number of days) and the number of hours of practice. |
| 63 | Para as análises, foi determinado o índice de prática de surf por meio da seguinte equação: Índice de prática de surf é igual ao número de horas de prática por dia, multiplicada pelo número de dias que pratica o esporte na semana, multiplicada pelo número de semanas no ano, multiplicada pelo número de anos de prática. | For the analyses, the surfing practice index was determined through the following equation: the surf practice index is equal to the number of hours of daily practice, multiplied by the number of days spent surfing in the week, multiplied by the number of weeks in the year, multiplied by the number of years of practice. | For analysis it was determined the practice *surfing* index by the following equation: surf practice index is equal to the number of hours of practice per day, multiplied by the number of days practicing sport at week multiplied by the number of Weeks in the year, multiplied by the number of years of practice. |
| 64 | O resultado permitiu classificar os participantes do estudo de acordo com o tempo de prática na modalidade: pouca prática (2999 horas/semana/ano), prática moderada (entre 3000 a 5999 horas/semana/ano) e prática intensa (acima de 6000 horas/semana/ano). | The result allowed the classification of the study participants according to time spent surfing: little practice (2999 hours/week/year), moderate (between 3000 to 5999 hours/week/year) and intense practice (over 6000 hours/week/year). | The results allowed us to classify the participants according to the practice time in the modality: little practice (2999 hours / week / year), moderate practice (between 3000 and 5999 hours / week / year) and intense practice (over 6000 hours / Week / year). |
| 65 | Inquérito de morbidade referida (IMR) | Referred Morbidity Survey (RMS) | **Referred morbidity survey (IMR)** |
| 66 | Questionário elaborado baseado no inquérito descrito por Hoshiet al. (16) e modificado segundo a realidade da modalidade esportiva. | Questionnaire drawn up based on the investigation described by Hoshiet al. (16) and modified according to the reality of the sport. | Questionnaire drawn up based on the survey described by Hoshi *et al.* (16) and modified according to the reality of the sporting modality. |
| 67 | Teve como objetivo reunir dados sobre o tipo de lesão, a região anatômica acometida, o momento em que o surfista sofreu a lesão e o mecanismo de lesão. | The instrument aimed to gather data about injury type, anatomical region affected, moment the surfer suffered the injury, and mechanism of injury. | The objective was to gather data on the type of injury, the anatomical region affected, the moment the surfer suffered the injury and the mechanism of injury. |
| 68 | Para a variável “tipo de lesão causada pelo esporte”, foram determinadas 6 categorias: tegumentar (laceração e queimadura por animal marinho), muscular (contusão e lesão muscular), óssea (fratura), articular (luxação), ligamentar (entorse ou lesão ligamentar), e outras. | For the variable *type of injury caused by the sport*, six categories were classified : integumentary (laceration and burn by marine animal), muscular (bruising and muscle injury), bone (fractures), joint (dislocation), ligament (sprain or ligament injury), and others. | For the variable type of injury caused by the sport, six categories were classified: tegumentar (laceration and burn by marine animal), muscular (contusion and muscle injury), bone (fracture), joint (dislocation), ligament (sprain or ligament injury), and others. |
| 69 | A região anatômica acometida foi categorizada em 4 segmentos: cabeça, membros superiores, membros inferiores e tronco. | The affected anatomical regions categorized into 4 segments: head, upper limbs, lower limbs and upper body. | The anatomic region was categorized into 4 segments: head, upper limbs, lower limbs and trunk. |
| 70 | O momento em que o surfista sofreu esta lesão foi dividido como: durante o treinamento ou durante a competição. | The moment when the surfer suffered the injury was classified as: during training or during competition. | The moment the surfer suffered this injury was divided as: during training or during competition. |
| 71 | Os mecanismos que promoveram a lesão foram categorizados em 4 tipos: remar e furar a onda; queda da prancha, choque com o fundo do mar e choque com a prancha; lesão por animal (caravela e água viva); e manobras. | The mechanisms that prompted the injury were categorized into 4 types: paddling and duck diving ; fall off the board, collision with the seabed and with the board; animal injury (Portuguese man o’war and jellyfish); and maneuvers. | The mechanisms that promoted the injury were categorized into 4 types: rowing and drilling the wave; Fall of the board, shock with the sea floor and clash with the board; Injury per animal (caravel and living water); And maneuvers. |
| 72 | O IMR foi respondido por meio de entrevista, onde o participante deveria recordar todas as lesões sofridas durante a prática do esporte, levando-se em consideração todos os anos de sua prática. | The RMS was answered through an interview, in which the participant was asked to recall all lesions they had suffered during the practice of sport, taking into account all the years of practice. | The IMR was answered through an interview, where the participant should remember all the injuries suffered during the practice of the sport, taking into consideration every year of their practice. |
| 73 | Análises dos resultados | Analysis of the results | **Analysis of results** |
| 74 | A análise estatística procedeu-se com a utilização do software R. | Statistical analysis was performed using the software R. | Statistical analysis was performed using the R software. |
| 75 | Em sua totalidade, os dados foram submetidos ao teste de Kolmogorov-Smirnov para testar a normalidade de distribuição. | In their entirety, data were submitted to the Kolmogorov-Smirnov test to verify the normality of distribution. | In their entirety, the data were submitted to the Kolmogorov-Smirnov test to test the normality of distribution. |
| 76 | As variáveis nominais e/ou ordinais foram descritas em frequência absoluta e percentual, já as variáveis numéricas foram descritas em média e erro padrão da média (EPM). | Nominal and/or ordinal variables were described in absolute and percentual frequency, and the numerical variables were described in terms of mean and standard error of the mean (SEM). | The nominal and / or ordinal variables were described in absolute frequency and percentage, since the numerical variables were described in mean and standard error of the mean (EPM). |
| 77 | Com o objetivo de avaliar quais variáveis exercem influência significativa na média de lesões dos surfistas foi ajustado um modelo log-linear de Poisson (17). | In order to assess which variables exert significant influence on the mean of the surfers'injury, a log-linear Poisson model was used(17). | In order to evaluate which variables have a significant influence on the mean of the surfers' injuries, a log-linear Poisson model was fitted (17). |
| 78 | O nível de significância foi fixado em p<0,05. | The significance level was set at p<0.05. | The level of significance was set at p <0.05. |
| 79 | RESULTADOS | RESULTS | **RESULTS** |
| 80 | A amostra foi constituída de 66 surfistas, eutróficos (73%), com predomínio de tempo de prática entre 0-10anos (56%); com frequência semanal de 3,5±0,2 dias/semana. | The sample consisted of 66 surfers, eutrophic (73%), with a predominance of practice time between 0-10 years (56%), with a weekly frequency of 3.5 ± 0.2 days/week. | The sample consisted of 66 surfers, eutrophic (73%), with a predominance of practice time between 0-10 years (56%); With a weekly frequency of 3.5 ± 0.2 days / week. |
| 81 | Além disso, a maior parte dos surfistas (52%) apresentou índice de prática classificado como “pouca prática”, na categoria recreacional (65%) e não federados (74%). | In addition, most of the surfers (52%) were classified as having "little practice", in the recreational category (65%) and in the non-federated categoryt (74%). | In addition, most surfers (52%) presented a practice index classified as "little practice" in the recreational category (65%) and non-federated (74%). |
| 82 | As características demográficas, antropométricas e físicas estão descritas na Tabela 1. | Demographic, anthropometric and physical characteristics are listed in table 1. | Demographic, anthropometric and physical characteristics are described in Table 1. |
| 83 | Tabela 1. | Table 1. | **Table**1. |
| 84 | Características demográficas, antropométricas e físicas dos participantes (n=66). | Demographic, anthropometric and physical characteristics of participants (n = 66). | Demographic, anthropometric and physical characteristics of the participants (n = 66). |
| 85 | Características | Characteristics | **Characteristics** |
| 86 | Média ± EPM (%) | Mean ± SEM (%) | **Mean ± SEM (%)** |
| 87 | Idade (anos, média ± EPM) | Age (years, mean ± EPM) | Age (years, mean ± SEM) |
| 88 | 26,16 ± 0,72 | 26.16 ± 0.72 | 26.16 ± 0.72 |
| 89 | Tempo de Prática | Practice time | Practice Time |
| 90 | 0 a 5 anos | 0 to 5 years | 0 to 5 years |
| 91 | 10,12 ± 1 | 10.12 ± 1 | 10,12 ± 1 |
| 92 | 22 (33) | 22 (33) | 22 (33) |
| 93 | 5 a 10 anos | 5 to 10 years | 5 to 10 years |
| 94 | 15 (23) | 15 (23) | 15 (23) |
| 95 | Acima de 10 anos | Above 10 years | Above 10 years |
| 96 | Frequência semanal (dias/semana) | Weekly frequency (days/week) | Weekly frequency (days / week) |
| 97 | Quantidade de horas diárias | Number of hours per day | Number of hours per day |
| 98 | 29 (44) | 29 (44) | 29 (44) |
| 99 | 3,5 ± 0,2 | 3.5 ± 0.2 | 3.5 ± 0.2 |
| 100 | 2,4 ± 0,15 | 2.4 ± 0.15 | 2.4 ± 0.15 |
| 101 | Índice de prática do surf (horas/semana/ano) | Index of surfing (hours/week/year) | *Surf* practice index *(hours* / week / year) |
| 102 | 4998 ± 863 | 4998 ± 863 | 4998 ± 863 |
| 103 | Pouca prática | Little practice | Little practice |
| 104 | 34 (52) | 34 (52) | 34 (52) |
| 105 | Prática moderada | Moderate practice | Moderate practice |
| 106 | 12 (18) | 12 (18) | 12 (18) |
| 107 | Prática intensa | Intense practice | Intense practice |
| 108 | 20 (30) | 20 (30) | 20 (30) |
| 109 | Categoria | Category | Category |
| 110 | Amador | Amateur | Amateur |
| 111 | Recreacional | Recreational | Recreational |
| 112 | 15 (23) | 15 (23) | 15 (23) |
| 113 | 43 (65) | 43 (65) | 43 (65) |
| 114 | Profissional | Professional | Professional |
| 115 | 8 (12) | 8 (12) | 8 (12) |
| 116 | Federado | Federated | Federated |
| 117 | Sim | Yes | Yes |
| 118 | Não | No | No |
| 119 | Classificação do IMC | Classification of BMI | Classification of BMI |
| 120 | 17 (26) | 17 (26) | 17 (26) |
| 121 | 49 (74) | 49 (74) | 49 (74) |
| 122 | Baixo peso | Low weight | Low weight |
| 123 | 4 (6) | 4 (6) | 4 (6) |
| 124 | Eutrófico | Eutrophic | Eutrophic |
| 125 | 48 (73) | 48 (73) | 48 (73) |
| 126 | Sobrepeso | Overweight | Overweight |
| 127 | 13 (20) | 13 (20) | 13 (20) |
| 128 | Obeso | Obese | Obese |
| 129 | 1 (2) | 1 (2) | 1 (2) |
| 130 | Nota: EPM - erro padrão da média. | Note: SEM - Standard Error of the Mean. | Note: EPM - standard error of the mean. |
| 131 | Os resultados são frequência absoluta e relativa (%). | The results reflect absolute and relative frequency (%). | The results are absolute and relative frequency (%). |
| 132 | Na Tabela 2 pode-se observar os resultados referentes ao Questionário Internacional de Atividade física - IPAQ, onde a maioria dos surfistas foi classificada como muito ativa (40%) seguidos de ativos (36,4%), sendo que apenas 1,5% foram classificados como insuficientemente ativos. | Table 2 shows the results of the International Physical Activity Questionnaire (IPAQ), in which most of the surfers were classified as very active (40%) followed by active (36.4%), with only 1.5% classified as insufficiently active. | Table 2 shows the results of the International Questionnaire on Physical Activity (IPAQ), where most surfers were classified as very active (40%) followed by active (36.4%), with only 1.5% Were classified as insufficiently active. |
| 133 | A análise dos resultados obtidos com o Inquérito de Morbidade Referida, em relação às lesões causadas pela prática do surf, mostrou a ocorrência de pelo menos algum tipo de lesão ao longo da carreira esportiva em 60 surfistas (90,9%). | The analysis of the results obtained from the reported morbidity survey, in relation to the injuries caused by surfing, showed the occurrence of at least some kind of injury along the sports career in 60 surfers (90.9%). | The results obtained with the investigation Morbidity in relation to the damage caused by *surfing,* showed the occurrence of at least one type of lesion along the sporting career surfers in 60 (90.9%). |
| 134 | Destes, 14 participantes (23,3%) relatam ter sofrido apenas uma lesão, 11 (18,3%) duas lesões, 15 (25%) três lesões, 10 (16,6%) quatro lesões, 5 (8,3%) cinco lesões, 2 (3,3%) seis lesões, um (1,6%) sete lesões e 1 (1,6%) sofreu 8 lesões, totalizando 100% das lesões. | Among these, 14 participants (23.3%) reported having suffered only one injury, 11 (18.3%) reported two injuries, 15 (25%) reported three lesions, 10 (16.6%) reported four lesions, 5 (8.3%) reported five lesions, 2 (3.3%) reported six lesions, 1 (1.6%) reported seven lesions and 1 (1.6%) reported eight lesions, totaling 100% of lesions. | Of these, 14 (23.3%) reported having only one lesion, 11 (18.3%) two lesions, 15 (25%) three lesions, 10 (16.6%) four lesions, 5 Five lesions, two lesions (3.3%), six lesions, one (1.6%) seven lesions and one (1.6%) suffered 8 lesions, totaling 100% of the lesions. |
| 135 | Sendo assim, ficou registrada a ocorrência de 178 lesões entre os 66 participantes do estudo. | Thus, an occurrence of 178 injuries among the 66 participants in the study was found. | Thus, the occurrence of 178 lesions among the 66 study participants was recorded. |
| 136 | De acordo com a Tabela 3, dentre os locais mais acometidos, levando-se em consideração o tipo de lesão, foi observado que 44,9% (n=80) das lesões acometeram os membros inferiores, 20,2% (n=36) os membros superiores, 18,5% (n=33) a cabeça e 16,3% (n=29) o tronco. | According to table 3, considering the type of injury, it was observed that 44.9% (n = 80) of the injuries affected the lower limbs, 20.2% (n = 36) affected the upper limbs, 18.5% (n = 33) affected the head and 16.3% (n = 29) affected the upper body. | According to Table 3, among the most affected sites, considering the type of lesion, 44.9% (n = 80) of the lesions affected the lower limbs, 20.2% (n = 36) ) The upper limbs, 18.5% (n = 33) the head and 16.3% (n = 29) the trunk. |
| 137 | É possível perceber também que a maioria das lesões ocorreu no sistema tegumentar, representando 46,4% dos acometimentos, seguidos por 28,1% de lesões musculares, 14,6% ligamentares, restando apenas 3,4% para lesões articulares, 1,1% ósseas e 6,2% sem diagnóstico definido. | It is also possible to notice that most of the injuries occurred in the integumentary system, representing 46.4% of cases, followed by 28.1% of muscle injuries, 14.6% of ligament injuries, with only 3.4% of joint injuries, 1.1% of bone lesions and 6.2% without definite diagnosis. | It is also possible to notice that most of the lesions occurred in the integumentary system, representing 46.4% of the cases, followed by 28.1% of muscular lesions, 14.6% of the ligaments, remaining only 3.4% for joint injuries, 1, 1% bone and 6.2% without definite diagnosis. |
| 138 | Tabela 2- Níveis de atividade física em minutos/semana dos participantes (n=66). | Table 2 - Levels of physical activity in minutes/week of participants (n = 66). | **Table 2** Levels of physical activity in minutes / week of participants (n = 66). |
| 139 | IPAQ | IPAQ | IPAQ |
| 140 | Média ± EPM (%) | Mean ± SEM (%) | Mean ± SEM (%) |
| 141 | Tipo de atividade | Type of activity | Type of activity |
| 142 | 1541,9 ± 148,3 | 1541.9 ± 148.3 | 1541.9 ± 148.3 |
| 143 | Trabalho | Work | Job |
| 144 | Transporte | Transport | Transport |
| 145 | 342,5 ± 97,5 | 342.5 ± 97.5 | 342.5 ± 97.5 |
| 146 | 285,0 ± 38,2 | 285.0 ± 38.2 | 285.0 Â ± 38.2 |
| 147 | Casa | House | Home |
| 148 | 238,2 ± 32,6 | 238.2 ± 32.6 | 238.2 ± 32.6 |
| 149 | Lazer | Leisure | Recreation |
| 150 | 676,0 ± 67,8 | 676.0 ± 67.8 | 676.0 ± 67.8 |
| 151 | Total por domínios | Total per domain | Total by domains |
| 152 | 1541,9 ± 148,3 | 1541.9 ± 148.3 | 1541.9 ± 148.3 |
| 153 | Caminhada | Walking | walking |
| 154 | 377,5 ± 62,8 | 377.5 ± 62.8 | 377.5 ± 62.8 |
| 155 | Moderado | Moderated | Moderate |
| 156 | 666,7 ± 63,5 | 666.7 ± 63.5 | 666.7 ± 63.5 |
| 157 | Vigoroso | Vigorous | Vigorous |
| 158 | 497,7 ± 68,4 | 497.7 ± 68.4 | 497.7 ± 68.4 |
| 159 | Classificação | Classification | Classification |
| 160 | Muito ativo | Very active | Very active |
| 161 | 40 (60,6) | 40 (60.6) | 40 (60.6) |
| 162 | Ativo | Active | Active |
| 163 | 24 (36,4) | 24 (36.4) | 24 (36.4) |
| 164 | Suficientemente ativo | Active enough | Active enough |
| 165 | 1 (1,5) | 1 (1.5) | 1 (1.5) |
| 166 | Nota: EPM - erro padrão da média. | Note: SEM - Standard Error of the Mean. | Note: EPM - standard error of the mean. |
| 167 | Os resultados são frequência absoluta e relativa (%). | The results are of absolute and relative frequency (%). | The results are absolute and relative frequency (%). |
| 168 | Tabela 3- Distribuição absoluta e relativa do tipo de lesão por região anatômica de ocorrência | Table 3-absolute and relative Distribution of type of injury by anatomical region of occurrence | **Table 3** absolute and relative distribution of the type of injury occurring anatomical region |
| 169 | Cabeça | Head | Head |
| 170 | Tronco | Upper body | Trunk |
| 171 | MMSS | UL | MMSS |
| 172 | MMII | LL | MMII |
| 173 | Total | Total | Total |
| 174 | Tegumentar | Integumentary | Integument |
| 175 | 20 (11,2) | 20 (11.2) | 20 (11.2) |
| 176 | 9 (5,1) | 9 (5.1) | 9 (5.1) |
| 177 | 12 (6,7) | 12 (6.7) | 12 (6.7) |
| 178 | 42 (23,6) | 42 (23.6) | 42 (23.6) |
| 179 | 83 (46,6) | 83 (46.6) | 83 (46.6) |
| 180 | Muscular | Muscle | Muscular |
| 181 | 8 (4,5) | 8 (4.5) | 8 (4.5) |
| 182 | 14 (7,9) | 14 (7.9) | 14 (7.9) |
| 183 | 13 (7,3) | 13 (7.3) | 13 (7.3) |
| 184 | 15 (8,4) | 15 (8.4) | 15 (8.4) |
| 185 | 50 (28,1) | 50 (28.1) | 50 (28.1) |
| 186 | Óssea | Bone | Bone |
| 187 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 188 | 0 (0) | 0 (0) | 0 (0) |
| 189 | 0 (0) | 0 (0) | 0 (0) |
| 190 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 191 | 2 (1,1) | 2 (1.1) | 2 (1.1) |
| 192 | Articular | Articulation | To articulate |
| 193 | 0 (0) | 0 (0) | 0 (0) |
| 194 | 0 (0) | 0 (0) | 0 (0) |
| 195 | 4 (2,2) | 4 (2.2) | 4 (2.2) |
| 196 | 2 (1,1) | 2 (1.1) | 2 (1.1) |
| 197 | 6 (3,4) | 6 (3.4) | 6 (3.4) |
| 198 | Ligamentar | Ligament | To bind |
| 199 | 0 (0) | 0 (0) | 0 (0) |
| 200 | 0 (0) | 0 (0) | 0 (0) |
| 201 | 7 (3,9) | 7 (3.9) | 7 (3.9) |
| 202 | 19 (10,7) | 19 (10.7) | 19 (10.7) |
| 203 | 26 (14,6) | 26 (14.6) | 26 (14,6) |
| 204 | Outras | Other | Others |
| 205 | 4 (2,2) | 4 (2.2) | 4 (2.2) |
| 206 | 6 (3,4) | 6 (3.4) | 6 (3.4) |
| 207 | 0 (0) | 0 (0) | 0 (0) |
| 208 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 209 | 11 (6,2) | 11 (6.2) | 11 (6.2) |
| 210 | Total | Total | Total |
| 211 | 33(18,5) | 33 (18.5) | 33 (18.5) |
| 212 | 29(16,3) | 29 (16.3) | 29 (16.3) |
| 213 | 36(20,2) | 36 (20.2) | 36 (20.2) |
| 214 | 80(44,9) | 80 (44.9) | 80 (44.9) |
| 215 | 178(100) | 178 (100) | 178 (100) |
| 216 | Nota: MMSS- membros superiores. | Note: UL-upper limbs. | Note: MMSS- upper limbs. |
| 217 | MMII - membros inferiores. | LL-lower limbs. | MMII - lower limbs. |
| 218 | Os resultados são frequência absoluta e relativa (%). | The results are of absolute and relative frequency (%). | The results are absolute and relative frequency (%). |
| 219 | O mecanismo de lesão (Tabela 4) mais comum foi queda ou choque da prancha/fundo do mar (40,4%), seguido pelas manobras (28,1%), remada ou “furar a onda” (19,7%) e por último o contato com animais como a caravela e água viva (11,8%), sendo esta prevalência diferente entre os diferentes tipos de tecidos acometidos. | The most common mechanism of injury (table 4) was found to be fall or shock with the board and/or the seabed (40.4%), followed by manoeuvres (28.1%), rowing or "duck dive" (19.7%) and finally contact with animals such as man o’war and jellyfish (11.8%), with this prevalence distinguished between the different types of affected tissues. | The most common mechanism of injury (Table 4) was a fall or shock of the plank / bottom of the sea (40.4%), followed by maneuvers (28.1%), paddling or "piercing the wave" (19.7%) And finally contact with animals such as caravel and live water (11.8%), being this prevalence different among the different types of affected tissues. |
| 220 | A maioria das lesões (93,3%) ocorreu durante o treinamento e apenas 6,7% ocorreram durante as competições. | Most of the injuries (93.3%) occurred during training and only 6.7% occurred during competitions. | Most injuries (93.3%) occurred during training and only 6.7% occurred during competitions. |
| 221 | Para avaliar a influência das variáveis pesquisadas na quantidade de lesões, foi ajustado um modelo log-linear de Poisson. | To evaluate the influence of the variables studied in the number of injuries, a log-linear Poisson model was used. | To evaluate the influence of the variables studied on the number of lesions, a log-linear Poisson model was fitted. |
| 222 | Através desta técnica, foi possível verificar quais variáveis exercem influência significativa na quantidade de lesões e também realizar interpretações. | Through this technique, it was possible to ascertain which variables exert significant influence on the number of lesions and also perform interpretations. | Through this technique, it was possible to verify which variables exert a significant influence on the number of lesions and also to perform interpretations. |
| 223 | Após excluir as variáveis não significativas e verificar a qualidade do ajuste, chegou-se ao modelo descrito na Tabela 5. | After deleting the non-significant variables and verifying the quality of the fit, the model described in table 5 was reached. | After excluding the non-significant variables and verifying the quality of fit, the model described in Table 5 was reached. |
| 224 | Tabela 4 - Distribuição absoluta e relativa do tipo de lesão por mecanismo de ocorrência | Table 4 - Absolute and relative distribution of the type of injury by mechanism of occurrence | **Table 4 -** Distribution of the absolute and relative type of injury occurring mechanism |
| 225 | Remada | Paddling | Paddling |
| 226 | Queda e choque | Drop and shock | Fall and shock |
| 227 | Animal | Animal | Animal |
| 228 | Manobra | Maneuver | Maneuver |
| 229 | Total | Total | Total |
| 230 | Tegumentar | Integumentary | Integument |
| 231 | 12 (6,7) | 12 (6.7) | 12 (6.7) |
| 232 | 43 (24,2) | 43 (24.2) | 43 (24.2) |
| 233 | 16 (9,0) | 16 (9.0) | 16 (9.0) |
| 234 | 12 (6,7) | 12 (6.7) | 12 (6.7) |
| 235 | 83 (46,4) | 83 (46.4) | 83 (46.4) |
| 236 | Muscular | Muscle | Muscular |
| 237 | 14 (7,9) | 14 (7.9) | 14 (7.9) |
| 238 | 19 (10,7) | 19 (10.7) | 19 (10.7) |
| 239 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 240 | 16 (9,0) | 16 (9.0) | 16 (9.0) |
| 241 | 50 (28,1) | 50 (28.1) | 50 (28.1) |
| 242 | Óssea | Bone | Bone |
| 243 | 0 (0) | 0 (0) | 0 (0) |
| 244 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 245 | 0 (0) | 0 (0) | 0 (0) |
| 246 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 247 | 2 (1,1) | 2 (1.1) | 2 (1.1) |
| 248 | Articular | Joint | To articulate |
| 249 | 2 (1,1) | 2 (1.1) | 2 (1.1) |
| 250 | 3 (1,7) | 3 (1.7) | 3 (1.7) |
| 251 | 0 (0) | 0 (0) | 0 (0) |
| 252 | 1 (0,6) | 1 (0.6) | 1 (0.6) |
| 253 | 6 (3,4) | 6 (3.4) | 6 (3.4) |
| 254 | Ligamentar | Ligament | To bind |
| 255 | 4 (2,2) | 4 (2.2) | 4 (2.2) |
| 256 | 4 (2,2) | 4 (2.2) | 4 (2.2) |
| 257 | 0 (0) | 0 (0) | 0 (0) |
| 258 | 18 (10,1) | 18 (10.1) | 18 (10.1) |
| 259 | 26 (14,6) | 26 (14.6) | 26 (14.6) |
| 260 | Outras | Others | Others |
| 261 | 3 (1,7) | 3 (1.7) | 3 (1.7) |
| 262 | 2 (1,1) | 2 (1.1) | 2 (1.1) |
| 263 | 4 (2,2) | 4 (2.2) | 4 (2.2) |
| 264 | 2 (1,1) | 2 (1.1) | 2 (1.1) |
| 265 | 11 (6,2) | 11 (6.2) | 11 (6.2) |
| 266 | Total | Total | Total |
| 267 | 35 (19,7) | 35 (19.7) | 35 (19.7) |
| 268 | 72 (40,4) | 72 (40.4) | 72 (40.4) |
| 269 | 21 (11,8) | 21 (11.8) | 21 (11.8) |
| 270 | 50 (28,1) | 50 (28.1) | 50 (28.1) |
| 271 | 178 (100) | 178 (100) | 178 (100) |
| 272 | Nota: Os resultados são frequência absoluta e relativa (%). | Note: The results are absolute and relative frequency (%). | Note: The results are absolute and relative frequency (%). |
| 273 | Tabela 5-Modelo log-linear de Poisson | Table 5-Log-linear Poisson Model | **Table 5** Model log-linear Poisson |
| 274 | Estimativa | Estimate | Estimate |
| 275 | Erro padrão | Standard error | Default error |
| 276 | valor z | z value | Z-value |
| 277 | valor p | p value | P value |
| 278 | Intercepto | Intercept | Intercept |
| 279 | 0,475 | 0.475 | 0.475 |
| 280 | 0,139 | 0.139 | 0,139 |
| 281 | 3,412 | 3.412 | 3,412 |
| 282 | 0,0006 | 0.0006 | 0.0006 |
| 283 | Tempo de surf | Time surfing | *surf* time |
| 284 | 0,025 | 0.025 | 0.025 |
| 285 | 0,010 | 0.010 | 0.010 |
| 286 | 2,517 | 2.517 | 2,517 |
| 287 | 0,0118 | 0.0 118 | 0.0118 |
| 288 | Federado | Federated surfer | Federated |
| 289 | 0,460 | 0.460 | 0,460 |
| 290 | 0,172 | 0.172 | 0,172 |
| 291 | 2,667 | 2.667 | 2,667 |
| 292 | 0,0076 | 0.0076 | 0.0076 |
| 293 | Cirurgia | Surgery | Surgery |
| 294 | 0,451 | 0.451 | 0.451 |
| 295 | 0,180 | 0.180 | 0.180 |
| 296 | 2,507 | 2.507 | 2,507 |
| 297 | 0,0122 | 0.0122 | 0.0122 |
| 298 | É possível verificar que as variáveis tempo de surf (em anos), se o surfista é federado e se já realizou alguma cirurgia prévia, estão relacionadas com maior média de lesões dos surfistas. | It is possible to see that the variables of surfing time (in years), are related toa higher average of injuries among surfers , in cases when the surfer is member of a federation and he or she has already experiencedany previous surgery | You can check the *surf* variables of time (in years), the surfer is federated and has performed any previous surgery, are related to higher average surfers injuries. |
| 299 | As interpretações para este modelo são realizadas através da exponencial das estimativas, onde esses valores são interpretados como razões de médias. | The interpretations for this model are performed through the exponential function of the estimates, where these values are interpreted as mean ratios. | The interpretations for this model are performed through the exponential of the estimates, where these values ​​are interpreted as mean ratios. |
| 300 | Desta forma, os surfistas federados possuem média estimada de lesões 58,4% maior que surfistas não federados . | Thus,the estimated average of injuries is 58.4% greater among federated surfers, as opposed to non-federated surfers. | Thus, the estimated average federated surfers have lesions greater than 58.4% non - federated *surfers.* |
| 301 | O intervalo de confiança de 95% para esta estimativa foi de (12,7%, 121,8%). | The 95% confidence interval for this estimate was (12.7%, 121.8%). | *The 95% confidence interval for the estimate was* (12.7%, 121.8%). |
| 302 | Surfistas que realizaram cirurgia possuem média estimada de lesões 56,9% maior do que os que não realizaram cirurgia, com intervalo de confiança de 95% (9,1%, 121,2%). | Surfers who underwent surgery have an estimated average of injury 56.9% greater than those who did not,with a 95% confidence interval of (9.1%, 121.2%). | Surfers who underwent surgery had an estimated mean number of lesions 56.9% higher than those who did not undergo surgery, with a 95% confidence interval (9.1%, 121.2%). |
| 303 | Para a variável tempo de surf, as estimativas foram realizadas para a quantidade de anos a mais que um surfista pratica o esporte. | For the *time surfing* variable, estimates were made according to the exceeding years of practice the surfer has. | For the variable *surf time,* the estimates were made for the amount of years on a surfer practicing the sport. |
| 304 | Com isso, para cada ano a mais de prática de surf, a média estimada de lesões cresce 2,5%, com intervalo de confiança de 95% de (0,5%, 4,5%). | Hence, for each exceeding year of surfing, the estimated average of injuries grows 2.5%, with a 95% confidence interval of (0.5%, 4.5%). | Thus, for each year over the *surf* practice, the estimated average lesions grow 2.5% with 95% confidence interval (0.5%, 4.5%). |
| 305 | Este modelo permite realizar predições da média de lesões esperada para cada atleta, utilizando a seguinte equação (2): | This model allows predictions of average incidence of injury expected for each athlete, using the following equation (2): | This model allows predictions of the mean of injuries expected for each athlete, using the following equation (2): |
| 306 | (2) | (2) | (2) |
| 307 | DISCUSSÃO | DISCUSSION | **DISCUSSION** |
| 308 | Popularmente, o surf é um esporte praticado por atletas de diferentes idades e geralmente associado a longos períodos de prática. | Popularly, surfing is a sport practiced by athletes of different ages and often associated with long periods of practice. | Commonly, *surfing* is a sport played by players of different ages and often associated with long periods of practice. |
| 309 | No presente estudo, a média de tempo de prática entre os participantes da pesquisa, foi de 2,4 horas diárias com frequência semanal de 3,5 dias por semana. | In the present study, the average practice time among the participants of the survey was 2.4 daily hours, with weekly frequency of 3.5 days. | In the present study, the average practice time among the participants was 2.4 hours per day with a weekly frequency of 3.5 days per week. |
| 310 | Ainda, 29 surfistas (44%) relataram praticar o esporte há mais de 10 anos. | Moreover, 29 surfers (44%) reported practicing the sport for over 10 years. | Still, 29 surfers (44%) reported practicing the sport for more than 10 years. |
| 311 | Resultados semelhantes podem ser observados no estudo de Moraes, Guimarães e Gomes (10) que investigou a prevalência de lesões em surfistas do litoral paranaense, onde a maioria dos participantes (47%) declarou surfar a 10 anos ou mais, praticando o esporte entre 2 a 4 vezes por semana (65%), com durações entre 2 a 4 horas por dia (92%). | Similar results can be observed in Moraes, Guimarães and Gomes (10), which investigated the prevalence of lesions in surfers from the coast of Paraná, where the majority of participants (47%) declared surfing for 10 years or more, practicing the sport from 2 to 4 times a week (65%); 2 to 4 hours per day (92%). | Similar results can be observed in the study by Moraes, Guimarães and Gomes (10), who investigated the prevalence of injuries in surfers from the coast of Paraná, where most of the participants (47%) reported surfing 10 years or more, practicing the sport between 2 To 4 times a week (65%), lasting between 2 and 4 hours per day (92%). |
| 312 | Da mesma forma, Steinman et al. (6) ao investigarem as regiões nordeste, sudeste e sul do Brasil, constataram que os surfistas avaliados praticavam o esporte em média 2,6 dias por semana, com duração média de 2,6 horas. | Similarly, Steinman et al. (6)investigated the Northeast, Southeast and South of Brazil and found that the surfers evaluated practiced the sport an average of 2.6 days per week, with an average duration of 2.6 hours. | Likewise, Steinman *et al.* (6) investigated the northeast, southeast and south regions of Brazil, found that the average surfers practiced the sport 2.6 days a week, with a mean duration of 2.6 hours. |
| 313 | Neste estudo os participantes foram subdivididos em categorias, sendo que a maioria pertencia à categoria recreacional (65%), seguido por 23% pertencente à categoria amador e apenas 12% à categoria profissional. | In this study, the participants were subdivided into categories, with most belonging to the recreational category (65%), followed by 23% belonging to the amateur category and only 12% to the Professional category. | In this study the participants were subdivided into categories, most of which belonged to the recreational category (65%), followed by 23% belonging to the amateur category and only 12% to the professional category. |
| 314 | No estudo de Moraes, Guimarães e Gomes (10) os resultados se mostram semelhantes, sendo que 70% da amostra eram surfistas recreacionais, 28% amadores e 2% profissionais. | The study by Moraes, Guimarães and Gomes (10) shows similar results, with 70% of the sample being recreational surfers, 28% amateurs and 2% professionals. | In the study by Moraes, Guimarães and Gomes (10) the results are similar, with 70% of the sample being recreational surfers, 28% amateurs and 2% professionals. |
| 315 | Estes desfechos vão ao encontro de outro estudo realizado por Base et al. (7) que também concluiu que a amostra foi de surfistas pertencentes à categoria recreacional (67%), seguida de amadores (29%) e profissionais (3%) dos estados litorâneos do Nordeste, Sudeste e Sul do Brasil. | These outcomes are supported by another study by Base et al. (7) which also concluded that the sample was of surfers belonging to the recreational category (67%), followed by amateurs (29%) and professionals (3%) of the coastal States of the Northeast, Southeast and South of Brazil. | These outcomes are going to meet another study by Base *et al.* (7), who also concluded that the sample was of surfers belonging to the recreational category (67%), followed by amateurs (29%) and professionals (3%) of the coastal states of the Northeast, Southeast and South of Brazil. |
| 316 | Em relação ao nível de atividade física, a ACSM - American College of Sports Medicine (18) enfatiza que para promover e manter a saúde é necessário que adultos saudáveis pratiquem atividade física moderada de qualidade aeróbia em, no mínimo, 30 minutos por dia, cinco vezes por semana ou realizem atividades físicas aeróbias intensas por no mínimo 20 minutos por dia, três vezes por semana. | Regarding the level of physical activity, the ACSM - American College of Sports Medicine (18) emphasizes that in order to promote and maintain health, it is necessary that healthy adults practice moderate aerobic physical activity for, at least, 30 minutes a day, five times a week. Alternatively, those adults can engage in intense aerobic physical activities for at least 20 minutes a day, three times a week. | Regarding the level of physical activity, the ACSM - *American College of Sports Medicine* (18) emphasizes that to promote and maintain health it is necessary for healthy adults practice moderate physical activity of aerobic capacity in at least 30 minutes a day, five Times a week or engage in intense aerobic physical activity for at least 20 minutes a day, three times a week. |
| 317 | A maioria dos surfistas desse estudo foram categorizados como muito ativo (60,6%), ou ativos (36,4%), segundo o IPAQ, corroborando com o estudo de Romariz, Guimarães e Marinho (19) com 83,2% dos surfistas investigados classificados como muito ativos (83,2%). | Most surfers in this study were categorized as very active (60.6%) or active (36.4%), according to IPAQ, consistent with Romariz, Guimarães and Marinho (19) with 83.2% of the surfers who were investigated classified as very active (83.2%). | Most of the surfers in this study were categorized as very active (60.6%), or active (36.4%), according to the IPAQ, corroborating Romariz, Guimarães and Marinho (19) with 83.2% of the Surfers surveyed classified as very active (83.2%). |
| 318 | Quanto ao IMC, Mendez-Villanueva e Bishop (1) apontam que o excesso de peso pode ser desvantajoso para a realização de alguns movimentos específicos do surf, bem como para o desempenho na modalidade, pois a coordenação motora e a economia de esforço podem ser afetados. | Concerning BMI, Mendez-Villanueva and Bishop (1) indicate that excessive weight can be disadvantageous when executing some specific surfing maneuvers, as well as for performance in the sport, since coordination and the economy of effort may be affected. | As for BMI, Mendez-Villanueva and Bishop (1) indicate that excess weight may be disadvantageous to carry out some specific movements of *surfing* as well as for performance in sport, for the coordination and the struggling economy may be Affected. |
| 319 | Nesse sentido, a prática de exercícios físicos pode influenciar diretamente no controle e na manutenção da massa corporal, sendo capaz de reduzir a quantidade de gordura e aumentar ou preservar a massa corporal magra. | In this sense, the practice of physical exercise can directly influence the control and maintenance of body weight, being able to reduce the amount of fat and increase or maintain lean body mass. | In this sense, the practice of physical exercises can directly influence the control and maintenance of body mass, being able to reduce the amount of fat and increase or preserve lean body mass. |
| 320 | Em nosso estudo a maioria dos surfistas foram classificados como eutróficos (73%), sendo sugestivo de que o nível de atividade física está contribuindo na regulação da massa corporal. | In our study, most surfers were classified as eutrophic (73%),suggesting that the level of physical activity is contributing in the regulation of body mass. | In our study, most surfers were classified as eutrophic (73%), suggesting that the level of physical activity is contributing to the regulation of body mass. |
| 321 | Em nosso estudo, dos 66 participantes, 60 relataram algum tipo de lesão, totalizando a ocorrência de 178 lesões, ao longo do período em que iniciaram a prática de surf até o momento da pesquisa. | In our study, 60 out of 66 participants reported some form of injury, leading to a total of 178 injuries occurrences, from the period when the practice of surfing started until the time of the survey. | In our study, the 66 participants, 60 reported some type of injury, the occurrence total of 178 injuries over the period that began *surfing* until the time of the survey. |
| 322 | Taylor et al. (20), em estudo realizado na Austrália com 646 surfistas de diferentes níveis de treinamento, relataram que 145 surfistas apresentaram 168 lesões agudas importantes ao longo dos 12 meses anteriores, constituindo 0,26 lesão por surfista no período de um ano. | Taylor et al. (20), in a study conducted in Australia with 646 surfers of different levels of training, reported that 145 surfers presented 168 acute injuries over the previous 12 months, constituting 0.26 injury per surfer in a one-year period. | Taylor *et al.* (20), in a study conducted in Australia with 646 surfers of different training levels, reported that 145 surfers had 168 important acute injuries over the previous 12 months, representing 0.26 injury per surfer in a one-year period. |
| 323 | Outro estudo semelhante (21), também realizado na Austrália apontou que num total de 1348 surfistas, 512 participantes relataram lesões agudas ao longo de 12 meses, totalizando 739 lesões constituindo a taxa de 1,79 lesões por 1000 horas surfadas. | Another similar study (21), also performed on Australia, indicated that out of a total of 1348 surfers, 512 participants reported acute injuries over 12 months, totaling 739 injuries and constituting the rate of 1.79 injuries per 1000 hours surfed. | A similar study (21), also conducted in Australia, found that in a total of 1348 surfers, 512 participants reported acute injuries over 12 months, totaling 739 injuries constituting the rate of 1.79 injuries per 1000 hours surfaced. |
| 324 | Ao considerar essa taxa o surf parece ser relativamente seguro, pois esportes como o futebol australiano apontam uma taxa de lesão de 25,7 lesões por 1.000 horas jogadas. | When considering this rate surfing seems to be relatively safe, because sports such as Australian rules football point a rate of 25.7 per 1,000 injuries injury hours played. | When considering this rate *surfing* appears to be relatively safe, for sports such as Australian football show a 25.7 injuries injury rate per 1000 hours played. |
| 325 | Quanto a prevalência do tipo das lesões é possível verificar que a maioria ocorre no sistema tegumentar (lacerações e queimaduras) representando 46,6% dos acometimentos, seguidos por 28,1% de lesões musculares (contusões e estiramentos), 14,6% de lesões ligamentares (entorse), restando apenas 3,4% para lesões articulares (luxações) e 1,1% para lesões ósseas (fraturas). | As for the prevalence of the type of injuries, one sees that most occur in the integumentary system (lacerations and Burns) representing 46.6 percent of occurences, followed by 28.1% of muscle injuries (bruises and stretches), 14.6% of ligament injuries (sprained ankle), with only 3.4% for joint injuries (dislocations) and 1.1% for bone injuries (fractures). | Regarding the prevalence of the type of lesions, it is possible to verify that the majority occurs in the integumentary system (lacerations and burns), representing 46.6% of the cases, followed by 28.1% of muscular injuries (contusions and stretches), 14.6% of (Sprain), remaining only 3.4% for joint injuries (dislocations) and 1.1% for bone lesions (fractures). |
| 326 | Steinman et al. (6) relata que 44% das lesões são do tipo lacerações e 17% compreendiam as contusões assim como Moran e Webber (22), que afirmam em seu estudo que lacerações (59%) e contusões (15%) foram responsáveis pela maior parte das lesões. | Steinman et al. (6) reports that 44% of injuries are lacerations and 17% understood the bruises as well as Moran and Webber (22), who claim in your study that lacerations (59%) and injuries (15%) were responsible for the bulk of the lesions. | Steinman *et al.* |
| 327 | Já no estudo de Base et al. (7) a maioria das lesões encontradas em surfistas profissionais foram as contusões (29%), seguida das lacerações (23%). | In the baseline survey et al. (7) most of the lesions found in pro surfers were bruising (29%), followed by the lacerations (23%). | (6) reported that 44% of lesions were lacerations and 17% comprised bruises, as did Moran and Webber (22), who stated in their study that lacerations (59%) and contusions (15%) accounted for most Of the lesions. |
| 328 | O estudo de Moraes, Guimarães e Gomes (10), apontou que o tipo de lesão prevalente foi à contusão (29%). | The study of Moraes, Guimarães and Garcia (10), pointed out that the injury type that most stood out was contusion (29 %). | In the study Base *et al.* |
| 329 | Já, Mitchell, Brighton e Sherker (23) indicam em seu estudo que a contusão apresentou 25,3% e as lacerações 19,1% do total das lesões durante o treinamento e competição de surf. | Similarly, Mitchell, Brighton and Sherker (23) report a 25.3% incidenceof bruising and 19.1% lacerations among total injuries during training and competition. | (7) most of the injuries found in professional surfers were injuries (29%), followed by lacerations (23%). |
| 330 | Woodacre, Waydia, e Wienand-Barnett (24) concluíram que as lacerações corresponderam a 31% das lesões seguidos de contusão (24%) e Nathanson et al. (9), apontam que as lacerações e as contusões foram o 2º e o 3º tipo de lesão mais frequente, respectivamente. | Woodacre, Waydia, and Wienand-Barnett (24) found that the lacerations corresponded to 31% of the lesions followed by contusion (24%) and Nathanson et al. (9), point out that the lacerations and contusions were the second and third most common injury type, respectively. | The study by Moraes, Guimarães and Gomes (10) showed that the prevalent type of injury was contusion (29%). |
| 331 | Dentre os locais mais acometidos, levando-se em consideração o tipo de lesão, foi observado que 44,9% (n=80) das lesões acometeram os membros inferiores, sendo o sistema tegumentar mais atingido (lacerações e queimaduras), 20,2% (n=36) os membros superiores, sendo o sistema muscular mais atingido (contusões e estiramentos), 18,5% (n=33) a cabeça, sendo o sistema tegumentar o mais atingido e 16,3% (n=29) o tronco, sendo o sistema muscular mais atingido. | Among the most affected, taking into account the type of injury, it was observed that 44.9% (n = 80) of injuries affecting the lower limbs, and the integumentary system more hit (lacerations and Burns), 20.2% (n = 36) upper limbs, muscular system being harder hit (bruising and stretching), 18.5% (n = 33) the head, being the integumentary system the more hit and 16.3% (n = 29) the trunk and the muscular system harder hit. | Already, Mitchell, Brighton and Sherker (23) show in their study that the injury had 25.3% and lacerations 19.1% of all injuries during training and *surfing* competition. |
| 332 | Corroborando, Steinman et al. (6) relatam que as lacerações mais frequentes foram nos membros inferiores, sendo os pés (22%) e pernas (11%) os locais mais acometidos. | Corroborating, Steinman et al. (6) reported that the most frequent were lacerations in the lower limbs and feet (22%) and legs (11%) were the most affected. | Woodacre, Waydia, and Wienand-Barnett (24) concluded that the lacerations corresponded to 31% of injury lesion followed (24%) and Nathanson *et al.*(9) reported that lacerations and contusions were the 2nd and 3rd most frequent type of lesions, respectively. |
| 333 | Moraes, Guimarães e Gomes (10) também concluíram que as lacerações na região dos pés foram as mais frequentes (9%). | Mathur, Guimarães and Gomes (10) also concluded that the lacerations in the feet were the most frequent (9%). | Among the most affected sites, considering the type of lesion, it was observed that 44.9% (n = 80) of the lesions affected the lower limbs, with the tegmental system being most affected (lacerations and burns), 20.2 (N = 36) the upper limbs, with the muscular system most affected (contusions and stretches), 18.5% (n = 33) the head, being the tegumentary system the most affected and 16.3% (n = 29) ) The trunk, being the muscular system most affected. |
| 334 | Nathanson et al. (9) sugerem que as lesões mais comuns no surf amador são lacerações na cabeça e nos membros inferiores. | Nathanson et al. (9) suggest that the most common injuries in amateur surfing are lacerations on the head and in the lower limbs. | Corroborating, Steinman *et al.* |
| 335 | Moran e Webber (21) afirmam que a cabeça foi o local mais acometido pelas lesões (32%), sendo a causa principal contusão (50%). | Moran and Webber (21) state that the head was the most affected by injuries (32%), being the main cause bruising (50%). | (6) report that the most frequent lacerations were in the lower limbs, with the feet (22%) and legs (11%) being the most affected sites. |
| 336 | Furness et al. (25) relatam que a região inferior das costas correspondeu a 23,2%, os ombros 22,4% e os joelhos 12,1% do total de lesões crônicas, mas não associam qual o tipo de lesão mais incidente por local. | Furness et al. (25) reported that the lower back region corresponded to 23.2%, 22.4% shoulders and knees 12.1% of all chronic injuries, but do not associate what type of injury more incident per site. | Moraes, Guimarães and Gomes (10) also concluded that lacerations in the feet were the most common (9%). |
| 337 | Logo, pode-se sugerir que os surfistas do litoral paranaense apresentam os mesmos tipos de lesões similares aos relatados em outras localidades do Brasil e no mundo, sendo as lacerações e contusões as mais frequentes e o local de maior acometimento os membros inferiores. | Soon, it may be suggested that the surfers of the Paraná coast present the same types of injuries similar to those reported in other localities of Brazil and in the world, being the lacerations and bruises the more frequent and the location of greater involvement the lower limbs. | Nathanson *et al.* |
| 338 | No estudo de Base et al. (8), o estiramento muscular teve prevalência de 12,5%. | In the baseline survey et al. (8), muscle stretch had prevalence of 12.5%. | (9) suggest that the most common injuries in amateur *surfing* are lacerations on the head and legs. |
| 339 | No estudo de Steinman et al. (7), esta lesão foi responsável por 9,6% no total de lesões. | In the study of Steinman et al. (7), this injury was responsible for 9.6% of total injuries. | Moran and Webber (21) stated that the head was the site most affected by the lesions (32%), the main cause being contusion (50%). |
| 340 | Em nosso estudo, o estiramento muscular foi relatado como lesão do sistema muscular (junto com as contusões) sendo 28,1% do total das lesões, semelhante ao estudo de Furness (21) que relatou 30,3% das lesões no sistema muscular. | In our study, the muscle stretch was reported as injured muscular system (along with the bruises) and 28.1% of the total injuries, similar to the study of Furness (21) who reported 30.3% of the lesions in the muscular system. | Furness *et al.*(25) reported that the lower back region corresponded to 23.2%, shoulders 22.4% and knees 12.1% of total chronic lesions, but did not associate which type of injury most incident per site. |
| 341 | Devido a isto a comparação com alguns estudos fica limitada devido aos critérios metodológicos. | Due to this the comparison with some studies is limited due to methodological criteria. | Therefore, it can be suggested that the surfers of the coast of Paraná have the same types of lesions similar to those reported in other locations in Brazil and in the world, with lacerations and contusions being the most frequent and the site of major involvement of the lower limbs. |
| 342 | Da mesma forma, nos estudos de Lowdon, Pateman & Pitman (26) e Lowdon et al., (27) em que entorse e estiramentos foram quantificados juntos, como lesão musculoligamentar. | Similarly, in studies of Lowdon, Pateman & Pitman (26) and Lowdon et al., (27) sprain and stretching were quantified together as musculoligamentar injury. | In the study Base *et al.* |
| 343 | A entorse, relatada como lesão no sistema ligamentar em nosso estudo, obteve 14,6% do total de lesões e o principal agente causador foram as manobras (10,1%), mais prevalente nos membros inferiores (10,7%). | The sprain, reported as injury to the ligament system in our study, won 14.6% of the total injuries and the main causative agent were the maneuvers (10.1%), more prevalent in the lower limbs (10.7%). | (8), muscle stretching had a prevalence of 12.5%. |
| 344 | No estudo de Moraes, Guimarães e Gomes (10) a entorse apareceu com 9% entre o total das lesões e as manobras também foram as principais responsáveis por esse tipo de lesão (47%), atingindo principalmente os membros inferiores, semelhante aos achados de nosso estudo. | In the study of Moraes, Guimarães and Gomes (10) sprain appeared with 9% among the total of injuries and the manoeuvres were also the main responsible for this type of injury (47%), reaching mostly the lower limbs, similar to the findings of our study. | In the study by Steinman *et al.* |
| 345 | Woodacre, Waydia e Wienand-Barnett (24) apontam que as entorses articulares foram o terceiro tipo mais frequente de lesão (15%). | Woodacre, Waydia and Wienand-Barnett (24) point out that the joint sprains were the third most frequent type of injury (15%). | (7), this lesion accounted for 9.6% of total lesions. |
| 346 | Já Taylor et al. (20) relatam 28,6% do total das lesões, porém os achados de Steinman et al. (6) indicam apenas 6% do total das lesões. | Ever Taylor et al. (20) reported 28.6% of total injuries, however the finds of Steinman et al. (6) indicate only 6% of total injuries. | In our study, muscle stretching was reported as a lesion of the muscular system (along with the contusions), being 28.1% of the total lesions, similar to Furness's study (21), which reported 30.3% of the lesions in the muscular system. |
| 347 | As lesões articulares (luxações) ocorreram em apenas 3,4% do total de lesões assim como no estudo de Steinmanet al. (6), onde foram relatadas luxações em 3,0% dos entrevistados. | Articular lesions (dislocations) occurred in only 3.4% of the total number of injuries as well as in the study of Steinmanet al. (6), where dislocations have been reported in 3.0% of respondents. | Due to this the comparison with some studies is limited due to methodological criteria. |
| 348 | Já no estudo de Base et al. (7) e Nathanson, Hyanes e Galanins (28) não foram encontradas queixas de luxações. | In the baseline survey et al. (7) and Nathanson, Hyanes and Galanins (28) were not found complaints of dislocations. | Similarly, in the studies of Lowdon, Pateman & Pitman (26) and Lowdon *et al.,* (27) wherein sprain and stretching were quantified together as musculoligamentar injury. |
| 349 | Quanto as fraturas, em nosso estudo, foram responsáveis por apenas 1,1% do total de lesões e seus principais agentes causadores foram as manobras e queda da prancha, sendo a cabeça e os membros inferiores os mais acometidos. | As the fractures in our study, accounted for only 1.1% of all injuries and its main causative agents were the maneuvers and fall from the Board, and the head and the legs the most affected. | Sprain, reported as a lesion in the ligament system in our study, obtained 14.6% of the total lesions and the main causative agent was the maneuvers (10.1%), more prevalent in the lower limbs (10.7%). |
| 350 | Semelhante ao encontrado nos estudos de Steinman et al. (6) e Woodacre, Waydia e Wienand-Barnett (24), onde as fraturas foram responsáveis por 2,5% e 3% do total das lesões, respectivamente. | Similar to that found in studies of Steinman et al. (6) and Woodacre, Waydia and Wienand-Barnett (24), where the fractures were responsible for 2.5% and 3% of the total injuries, respectively. | In the study by Moraes, Guimarães and Gomes (10) sprain appeared with 9% of total injuries and maneuvers were also the main responsible for this type of injury (47%), mainly affecting the lower limbs, similar to the findings of Our study. |
| 351 | No estudo de Base et al. (7) as fraturas ocorreram em 5,4% do total das lesões, semelhante aos 6,0% encontrados por Nathanson, Hyanes e Galanins (28). | In the baseline survey et al. (7) the fractures occurred in 5.4% of total injuries, similar to 6.0% found by Nathanson, Hyanes and Galanins (28). | Woodacre, and Wienand Waydia-Barnett (24) indicate that the joint sprains are the third most frequent type of lesion (15%). |
| 352 | Lowdon et al. (27) relatam 9,0% de ocorrência e Taylor et al. (20) indicam 8,9%. | Lowdon et al. (27) report 9.0% of occurrence and Taylor et al. (20) indicate 8.9%. | Since Taylor *et al.* |
| 353 | Em todos esses estudos, as fraturas foram mais frequentes em membros inferiores e tiveram como principal agente etiológico as manobras, corroborando com os achados de nosso estudo. | In all these studies, the fractures were more frequent in lower limbs and had as the main Etiologic Agent maneuvers, corroborating with the findings of our study. | (20) reported 28.6% injury of the total, but the findings Steinman *et al.*(6) indicate only 6% of the total lesions. |
| 354 | Já Sano e Yotsumoto (29), demonstraram a ocorrência de fraturas de uma única costela em 50% dos surfistas atendidos em serviço hospitalar com ferimentos no peito, durante o período de seis anos, em comparação a 21% em pessoas com lesões torácicas associadas a outros esportes. | Already Sano and Yotsumoto (29), have demonstrated the occurrence of a single rib fractures in 50% of the surfers served in hospital with chest injuries service, during the six-year period, compared to 21% in people with chest injuries associated with other sports. | The articular lesions (dislocations) observed in only 3.4% of the total injury as in the study Steinman *et al.* |
| 355 | As lesões do sistema tegumentar (queimaduras e lacerações), tipo mais frequente de lesão em nosso estudo, podem ser explicadas pelo fato de animais marinhos que causam queimaduras, como águas-vivas e caravelas, procurarem águas mais quentes, a exemplo do litoral paranaense. | Integumentary system lesions (Burns and lacerations), the most frequent type of injury in our study, can be explained by the fact that marine animals that cause burns, like jellyfish and caravelas, seeking warmer waters, the example of the Paraná coast. | (6), where dislocations were reported in 3.0% of respondents. |
| 356 | Fato este não encontrado no estudo de Lowdon et al. (27), realizado no sudeste da Austrália, onde a temperatura das águas são frias, ocasionando o baixo aparecimento de águas-vivas. | This fact was not found in the study of Lowdon et al. (27), held in Southeast Australia, where the temperature of the waters are cold, causing the low appearance of jellyfish. | In the study Base *et al.* |
| 357 | Em relação às lacerações, essas podem ser atribuídas ao contato de alguma parte do corpo com estruturas pontiagudas da prancha, como as quilhas e o bico ou então devido ao choque do surfista com o fundo do mar ou pedras próximas ao local de prática do esporte. | In relation to lacerations, these can be assigned to the contact in any part of the body with pointy plank structures such as the keels and the beak or so due to the shock of the surfer with the bottom of the sea or stones close to the sports site. | (7) and Nathanson, Hyanes and Galanins (28) no complaints of dislocations were found. |
| 358 | As lesões musculares e ligamentares (2º e 3º tipo mais frequente de lesão em nosso estudo, respectivamente) podem sugerir predisposição a lesões de natureza traumática devido ao esforço repetitivo, sendo que a preparação física inadequada e as características próprias do esporte podem ser causas diretas desses tipos de lesão, sendo necessárias pesquisas mais aprofundadas acerca do tema. | Muscle and ligament injuries (2nd and 3rd most frequent type of injury in our study, respectively) may suggest a predisposition to injuries traumatic in nature due to the repetitive stress, and the inadequate physical preparation and the characteristics of the sport can be direct causes of these types of injury, and required further research on the subject. | In our study, fractures were responsible for only 1.1% of the total lesions and their main causative agents were the maneuvers and plank fall, with the head and lower limbs most affected. |
| 359 | Verificamos em nosso estudo que o tempo da prática de surf, a categorização do surfista (profissional federado) e o histórico de realização de algum tipo de cirurgia, predizem estatisticamente, maior média estimada de lesões. | We checked in our study that the time of surfing, the categorization of the surfer (Federated professional) and history of conducting any type of surgery, predict statistically, highest average estimated injuries. | Similar to that found in studies by Steinman *et al.* |
| 360 | Para a variável tempo de surf, as estimativas apontam que a média estimada de lesões cresce 2,5% a cada ano, demonstrando que um atleta com 25 anos de prática de surf, federado e com histórico de alguma cirurgia terá em média 7,4 lesões de diferentes tipos, ao longo de sua carreira. | For the variable time to surf, estimates indicate that the estimated average of injuries grows 2.5% each year, demonstrating that an athlete with 25 years of surfing, and with a history of surgery will have on average 7.4 lesions of different types over the course of your career. | (6) and Woodacre, and Wienand Waydia-Barnett (24), where the fractures accounted for 2.5% and 3% of total lesions, respectively. |
| 361 | As informações acerca da estimativa da média de lesões apresentadas em nosso estudo vão ao encontro as recomendações sugeridas por Steinman et al. (6), que indica a importância da realização de estudos para estimar quantitativamente a incidência de lesões. | The information on the average estimate of injury presented in our study will meet the recommendations suggested by Steinman et al. (6), indicating the importance of conducting studies to estimate the incidence of injuries. | In the study Base *et al.* |
| 362 | Estas são importantes no sentido de dar subsídio à elaboração e adoção de estratégias de prevenção e tratamento de lesões. | These are important in order to give allowance to the elaboration and adoption of strategies for the prevention and treatment of injuries. | (7) fractures occurred in 5.4% of the total lesions, similar to the 6.0% found by Nathanson, Hyanes and Galanins (28). |
| 363 | Nesse sentido, podem contemplar desde a utilização de equipamentos de proteção (6, 7, 8, 20, 24), a prevenção de comportamento de risco (30) e até mesmo a inserção e adequação dos programas de preparação física dos surfistas (6). | In this sense, can contemplate from the use of protective equipment (6, 7, 8, 20, 24), prevention of risk behaviour (30) and even insert and adequacy of physical preparation of surfers (6). | Lowdon *et al.* |
| 364 | Além da adoção de campanhas de conscientização dos praticantes da modalidade no sentido de inserir na rotina esportiva hábitos que promovam a redução dos riscos de lesão, tais como a realização de aquecimento prévio ao exercício físico (10). | In addition to the adopting of awareness campaigns of the practitioners of the sport in order to insert into the sports routine habits that promote reduction of the risks of injury, such as preheating the exercise (10). | (27) reported 9.0% occurrence and Taylor *et al.* |
| 365 | CONCLUSÃO | CONCLUSION | (20) indicate 8.9%. |
| 366 | Os surfistas do litoral paranaense apresentaram alta prevalência de lesões, sendo que a maioria ocorreu nos membros inferiores e acometeram o sistema tegumentar. | Surfers of the Paraná coast showed high prevalence of injuries, most of which occurred in the lower limbs and affecting the integumentary system. | In all of these studies, fractures were more frequent in the lower limbs and had the main etiological agent the maneuvers, corroborating with the findings of our study. |
| 367 | A prevalência de lesões foi influenciada pelo maior tempo de prática, realização de cirurgia pregressa e estar federado. | The prevalence of lesions was influenced by increased practice time, early surgery and be Federated. | Sano and Yotsumoto (29), have demonstrated the occurrence of single rib fractures in 50% of surfers attended in hospital service with chest injuries during the six-year period, compared to 21% in people with chest injuries associated with Other sports. |
| 368 | Sendo assim, sugerimos a adoção de estratégias para redução da exposição dos surfistas a fatores que predispõe a lesão, tais como o desenvolvimento e utilização de equipamentos de proteção, campanhas educativas abordando a necessidade de hábitos que promovam a redução dos riscos de lesão, preparação física específica às características da modalidade e categoria, especialmente os profissionais federados que participam de competições bem como reabilitação fisioterapêutica adequada após procedimentos cirúrgicos visando acelerar o retorno à prática esportiva. | Therefore, we suggest the adoption of strategies to reduce the exposure of surfers the factors that predispose to injury, such as the development and use of protective equipment, educational campaigns addressing the need of habits that promote reduction of the risks of injury, physical characteristics and mode-specific category, especially federal professionals who participate in competitions as well as proper physiotherapy rehabilitation after surgical procedures to accelerate the return to sports practice. | The lesions of the integumentary system (burns and lacerations), the most frequent type of injury in our study, can be explained by the fact that marine animals that cause burns, such as jellyfish and caravels, seek warmer water, such as the coast of Paraná. |
| 369 | REFERÊNCIAS | REFERENCES | A fact not found in the study Lowdon *et al.* |
| 370 | Mendez-Villanueva A, Bishop D. | Mendez-Villanueva, Bishop D. | (27) carried out in southeastern Australia, where the temperature of the waters is cold, causing the low occurrence of jellyfish. |
| 371 | Physiological aspects of surfboard riding performance. | Physiological aspects of surfboard riding performance. | In relation to lacerations, these can be attributed to the contact of some part of the body with pointed structures of the board, such as the fins and the beak or because of the surfer's shock with the seabed or stones near the place of practice of the sport. |
| 372 | Sports Med. 2005;35(1):55-70. | Sports Med. 2005; 35 (1): 55-70. | Muscle and ligament injuries (2nd and 3rd most frequent type of injury in our study, respectively) may suggest predisposition to injuries of a traumatic nature due to repetitive effort, and inadequate physical preparation and the characteristics of the sport may be direct causes of these injuries. |
| 373 | Mendez-Villanueva A, Bishop D, Hamer P. | Mendez-Villanueva, Bishop D, Hamer P. | Types of lesions, and further research on the subject is needed. |
| 374 | Activity profile of world-class professional surfers during competition: A case study. | Activity profile of world-class professional surfers during competition: A case study. | We found in our study that while the practice of *surfing,* categorization surfer (federated business) and historical fulfillment of some type of surgery, a statistically predicted, the estimated average largest lesions. |
| 375 | J Strength Cond Res. 2006;20(3):477–82. | J Strength Cond Res. 2006; 20 (3): 477-82. | For the variable *surf time,* estimates indicate that the average estimated damage grows 2.5% every year, demonstrating that an athlete with 25 years of *surfing,* federated and history of some surgery will have on average 7.4 Lesions of different types throughout his career. |
| 376 | Sheppard JM, Nimphius S, Haff GG, Tran TT, Spiteri T, Brooks H, Slater G, Newton RU. | Sheppard JM, Nimphius S, Haff GG, Tran TT, Spiteri T, Brooks H, Slater G, Newton RU. | Information about the average estimate of lesions presented in our study are in line with the recommendations suggested by Steinman *et al.* |
| 377 | Development of a comprehensive performance-testing protocol for competitive surfers. | Development of a comprehensive performance-testing protocol for competitive surfers. | (6), which indicates the importance of conducting studies to quantitatively estimate the incidence of lesions. |
| 378 | Int J Sports Physiol Perform. 2013;8(5):490-495. | Int J Sports Physiol Perform. 2013; 8 ( 5): 490-495. | These are important in order to support the development and adoption of strategies for the prevention and treatment of injuries. |
| 379 | Aguerre F. | Aguerre F. | In this sense, they can contemplate the use of protective equipment (6, 7, 8, 20, 24), the prevention of risk behavior (30) and even the insertion and adaptation of surfers' . |
| 380 | Surfing And The Olympics. | Surfing And The Olympics. | In addition to the adoption of awareness campaigns of the practitioners of the modality in the sense of inserting in the sports routine habits that promote the reduction of the risks of injury, such as the previous warm up to the physical exercise (10). |
| 381 | International Surfing Association - ISA. [Serial on the internet] 2015. [cited 2015 Jul. 02] Available from: URL: http://www.isasurf.org/olympic-surfing/general-information-olympic-surfing/. | International Surfing Association-Isa. [Serial on the internet] 2015. [cited July 2015.02] Available from: URL: http://www.isasurf.org/olympic-surfing/general-information-olympic-surfing/. | **CONCLUSION** |
| 382 | Brasil. | Brazil. | The surfers of the coast of Paraná presented a high prevalence of injuries, being that the majority occurred in the inferior members and they attacked the integumentary system. |
| 383 | Ministério do Esporte. | Ministry of sport. | The prevalence of injuries was influenced by the greater time of practice, previous surgery and federation. |
| 384 | Diagnóstico Nacional do Esporte – Diesporte. | National diagnosis of sport-Diesporte. | Therefore, we suggest the adoption of strategies to reduce the exposure of surfers to factors that predispose to injury, such as the development and use of protective equipment, educational campaigns addressing the need for habits that promote the reduction of injury risks, physical preparation Specific to the characteristics of the modality and category, especially the federated professionals participating in competitions as well as adequate physiotherapeutic rehabilitation after surgical procedures aiming to accelerate the return to the sport practice. |
| 385 | Ministério do Esporte. 2015. [Serial on the internet] 2015. [cited 2015 Jul. 02] Available from: http://www.esporte.gov.br/diesporte/diesporte\_grafica.pdf | Ministry of sport. 2015. [Serial on the internet] 2015. [cited July 2015.02] Available from: http://www.esporte.gov.br/diesporte/diesporte\_grafica.pdf | **REFERENCES** |
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