جـــامعة المـرقـب

المجــلة العـلمية

مجلة علمية محكمة تحت مسمى «مجلة علوم التربية الرياضية والعلوم الأخرى»

منشورات كلية التربية البدنية – جامعة المرقب

الموقع الإلكتروني

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التعليمات الخاصة بنظم النشر مجلة التربية الرياضية والعلوم الأخرى

طبيعة المواد المنشورة

تهدف المجلة إلى إتاحة الفرصة لكافة المتخصصين لنشر إنتاجهم العلمي في مجال علوم الرياضة والتربية البدنية والعلوم الأخرى، الذي تتوافر فيه الأصالة والجدية والمنهجية العلمية.

وتقوم المجلة بنشر المواد التي لم يسبق نشرها باللغة العربية أو الإنجليزية وتقبل المواد في الفئات التالية:

- البحوث الأصيلة.
- المراجعات العلمية.
- تقارير البحوث.
- المراسلات العلمية القصيرة.
- تقارير المؤتمرات والندوات.

اللائحة التنظيمية:

1- أن تكون الدراسات أصلية ولم يسبق نشرها أو قبولها للنشر.

2- تصدر كلية التربية البدنية جامعة المرقب مجلة علمية تسمي (مجلة التربية الرياضية – والعلوم الأخرى) .

3- تصدر المجلة بصفة دورية كل 6- أشهر من كل عام.

أهداف المجلة:

1- المشاركة في تشجيع حركة البحث العلمي.

2- تحقيق إضافة جديدة على الساحة العلمية في المجالات الرياضية.

3- نشر وتعزيز الدراسات والأبحاث العلمية الرياضية.

سياسة النشر:

1- تختص المجلة بنشر الأبحاث والمقالات العلمية في المجالات الرياضية والتربية البدنية والعلاج الطبيعي والتأهيل الرياضي والأبحاث التربوية والعلوم الأخرى المرتبطة بها.

2--يسمح بالاشتراك في المجلة بالأبحاث أو المقالات التي يجريها أو يشترك فيها أعضاء هيئة التدريس أو الباحثين في الجامعة والمعاهد العلمية ومراكز وهيئات البحث العلمي في ليبيا وخارجها.

3--تنشر الأبحاث في المجلة وفق الأسبقية دورها بعد تحكيمها وإعدادها في شكلها النهائي وفق شروط النشر والقواعد التي تقررها المجلة.

4- جميع الأبحاث المقدمة للنشر لا ترد لأصحابها سواء نشرت أو لم تنشر وإذا تمت الموافقة على نشرها فإن لهيئة التحرير الحق في نشرها في الوقت الذي تراه مناسباً.

5--يخضع ترتيب الموضوعات في المجلة لاعتبارات فنية.

شروط ومعايير النشر:

1- تكون الدراسات أصلية ولم يسبق نشرها أو قبولها للنشر.

2- يقدم الباحث أصل + نسخة على CD +ثلاثة نسخ مطبوعة وعلى وجه واحد فقط وعلى ورق كوارتر مقياس 4A مع ضرورة ترك الصفحات بدون ترقيم.

3- تتضمن الصفحة الأولى عنوان البحث، اسم الباحث أو الباحثين ووظائفهم.

4- يجب ألا يزيد عدد الصفحات عن 20 صفحة وفي حالة الزيادة عن 20 صفحة يتم دفع مبلغ خمسة دنانير عن كل صفحة.

إجراءات التحكيم:

1-تلتزم لجنة المجلة بإشعار الباحث بوصول بحثه وإحالته إلى هيئة التحرير.

2- تتم مراجعة البحوث المقدمة بصورة مبدئية من هيئة التحرير لتقرير مدى صلاحيتها وتمشيها مع سياسة المجلة ويمكن تبعا لذلك استبعاد بعض البحوث وعدم إرسالها للتحكيم مع ضرورة إبلاغ صاحب البحث بذلك.

3--يحال البحث للتقييم من قبل ثلاثة من الأساتذة المحكمين أعضاء اللجنة العلمية الدائمة للتربية البدنية في ليبيا.

4--تحال البحوث المقدمة للنشر إلى المحكمين في آن واحد وترفق مع البحث استمارة التحكيم ليقوم كل محكم بملء هذه الاستمارة خلال فترة محددة.

5- تعتمد قرارات المحكمين بالأغلبية من حيث القبول أو الرفض من قبل هيئة التحرير.

6- تقوم لجنة المجلة بإبلاغ أصحاب البحوث بإجازة بحثهم، ولهيئة التحرير أن تطلب إجراء تعديلات شكلية أو موضوعية بناءً على توصية المحكمين قبل إجازة البحث للنشر

7--تلتزم المجلة بالسرية التامة بالنسبة لعملية التحكيم وأسماء المحكمين.

قواعد عامة:

- تقبل البحوث من خارج ليبيا.

- تسديد الرسوم تحدد من قبل هيئة التحرير أو مجلس الكلية أو مجلس الجامعة.

شروط كتابة البحوث:

1- تكتب البحوث المقدمة للمجلة على ورق حجم A4.

2- بالنسبة للهوامش تراعى الشروط التالية:

- من أعلى 3.5 سم ومن باقي الجوانب 3 سم.

- خط العنوان الرئيسي للبحث SakkalMajalla حجم **Bold** 20 .

- خط الكتابة العربي SakkalMajalla حجم 14 عادي وتأخذ أسماء الباحثين والعلماء..**Bold**

- خط الكتابة الأجنبي Times New Roman حجم **Bold** 12 .

- خط العناوين Simplified Arabic حجم Bold 16 والعناوين الصغيرة **Bold** 14.

- خط العناوين الأجنبي Times New Roman حجم **Bold** 16 .

3- بالنسبة للجداول تكون مفتوحة من الجانبين ومسطرة تحديداً مفردا أما بداية ونهاية الجدول فيكون التحديد مزدوجاً.

كلمة العدد

الحمـد لله رب العـالمين وأصـلي وأسـلم على خيـر الخلـق أجمعـين محمـداً النبي الأمـين وعلى آلة وصحبه أجمعين.......... وبعد.

إنـه ليسـعدني نيابـة عـن مجلـس الكليـة أن أقـدم العـدد الثـامن (ديسـمبر 2021-2022م) مـن المجلـد الأول العـدد الثـامن مـن مجلـة التربيـة الرياضـية والعلـوم الأخـرى الصـادرة مـن كليـة التربيـة البدنيـة – جامعـة المرقب في صـورتها الجديـدة لتسـهم بجهـد وافـر في النشـر العلمي في مختلـف أنشـطة التربيـة الرياضـية والبدنيـة والصـحية والفنيـة والترويحيـة وبعـض العلـوم الأخـرى المرتبطـة باعتبارهـا رائـدة المجـلات العلميـة المتخصصـة على مسـتوى كليـات التربيـة البدنيـة وعلـوم الرياضـة بدولـة الليبيـة إيمانـا برسـالة الجامعـة في هـذا الصـدد مراعيـة اتسـام محتـوى المجلـة بالتجريـب والتطـوير والتطبيـق في ظـل أهـداف الجامعـات الإقليميـة الأمـر الـذي أصـبح ضـرورة ملحـة في عـالم سـريع التغيـير بابتكاريـة التكنولوجيـا والتقـدم العلمي المـذهل، حيـث حقـق العلـم وثبـة كبيـرة في كـل المجـالات وكـان للتربيـة البدنيـة نصـيبا مـن هـذا التقـدم حيـث لعـب طمـوح علمـاؤهـا دوراً أساسـياً في الاعتمـاد على علـوم حديثة ليكون منها المنطلق للتقدم.

وقـد آلـت كليـة التربيـة البدنيـة بالجامعـة على تطـوير هـذه المجلـة حتى تصـل إلى المسـتوى اللائـق بالجهـد الـذي تبذلـه للنهـوض بهـا بـين الجامعـات الليبيـة والعربيـة والعالمية.

ولا يسـعنا إلا أن نتقـدم بالشـكر لجميـع مـن أسـهموا في ظهـور المجلـة سـواء بالنقـد البنـاء أو تقـديم المقـالات والبحـوث والتراجـم العلميـة ونتوجـه إلـيهم جميعـاً لطلب المزيـد مـن التعـاون حتى نصـل بهـذه المجلـة إلى المسـتوى العلمي والفني المتكامـل في مجالات أنشطة التربية الرياضية والصحية والتربوية.

عميد الكلية
ورئيس هيئة التحرير
د: ميلود عمار النفر

Validation of an Arabic version of the brief pain inventory in Libyan patients with chronic pain

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Abstract

Chronic pain is prevalent complain and its proper management requires accurate assessment by using comprehensive, culturally sensitive, reliable, valid standard pain measuring instrument. Such Pain metric have not been validated in Libyan patients so that, the purpose of this study was to validate the psychometric properties of the Brief Pain Inventory Arabic version BPI-AV in Libyan patients with chronic pain.

After translation to Arabic and testing of cultural sensitivity, we administered the BPI-AV and visual analogue scale of pain VAS to 120 patients with chronic pain. Factor analysis was used to evaluate factor structure, and Cronbach's alpha coefficients values were used to assess reliability. The BPI and its pain severity subscale were validated against VAS.

In total,115(96%)patients were eligible for the study.

A factor analysis revealed a structure of three factors; pain intensity, interference with physical function, and interference with psychological functions. These three factors explained 72% of the variance.

Cronbach`s α coefficients were 0.86 for the severity items, 0.74 for the psychological interference items ,0.84 for the physical interference items and 0.85 for BPI as a whole. The correlations between ratings on VAS of pain and each of the total BPI scores, pain severity index and pain severity item asking about pain right now were 0.71,086, 0.71 respectively ($p < 0.01$). We conclude that BPI has satisfactory psychometric properties and it could be valid tool for measuring pain in Libyan patients.

Key Words

Brief Pain Inventory, pain measurement, validation study, Libya.

Introduction

Chronic Pain is prevalent health issue associated with great therapeutic challenges. According to the international Association of Pain Study, chronic pain defined as a pain that has duration of three months or more, and may be recognized as a disease in its own. [1] A multi-center study conducted by the World Health Organization concluded that more than one fifth of the world population suffer from chronic pain and patients with chronic pain are more likely to have psychological disorders such as anxiety and depression, limited physical activity and unfavorable overall health .[2]

Ineffectiveness of chronic pain treatment is well reported by successive researches from developed as well as developing countries. About 37% of chronic pain patients across Asia perceived their pain treatments as inadequate, this percentage exceeds 51% in France.[3-8] The extent to which the chronic pain is adequately managed determined mainly by its proper measurement and assessment .[9-13]

The currently used pain metrics for both clinical and research purposes in Libya are the visual analog scale VAS and the Verbal Rating Scale. Neither of them is multidimensional tool and they assess only single pain dimension such as pain intensity or relief, that render them insufficient in both research and clinical settings.

Whereas, the optimal chronic pain measurement tool would measure pain intensity, yield information about how much that pain interferes with patient`s daily living activity and mental health, be brief, be versatile to accommodate a wide range of medical conditions and having acceptable psychometric properties such as reliability and validity. [13-19]

Even though, numerous pain scales have been used in clinical practice and researches the brief pain inventory B.P.I in its long and short versions remains among the most prominent pain measurement tools in common use currently.

The BPI is a simple pain measure requires no more than couple of minutes to be completed, self-administered. Although it can be administered by interview.[20]

Its multidimensional measuring capacity does guarantee its use to evaluate the two main domains of pain; pain severity and pain interference, therefore assessing the sensory, affective, cognitive, behavioral and sociocultural dimensions of chronic pain[21].

This comprehensive measuring tool possesses strong psychometric proprieties. As several studies across the world have confirmed its reliability, validity and cultural sensitivity in many cultures and languages and in a variety of patients including those with chronic pain[22].

This measuring tool has been translated into Arabic language in several Arabic countries for instance, Lebanon, Saudi Arabia and Morocco.[23,24, 28]

Nevertheless, the developed Arabic versions may not be sensitive to use in Libya. Because each Arabic country has its own special culture and distinctive dialect despite the common use of classic Arabic language in all Arabic states.

The aim of this study was to develop the Libyan Arabic version of the brief pain inventory-short form BPI-SF and to evaluate its culture sensitivity and psychometric properties in terms of reliability and validity in Libyan patients with chronic pain. According to Ballout and her colleagues there is necessity to test the psycho metric properties and cultural sensitivity of Arabic versions of pain measures in the Arab speaking communities.[23]

Methods

Subjects

The validation sample in this study was a convenience sample of 120 patients recruited from departments of physiotherapy, oncology, rheumatology, orthopedics, hematology and infectious diseases of the university hospital in Tripoli, Libya. The sample size was estimated based on similar previous studies concerned with factor analysis and bi-variate correlations. The inclusion criteria included adult Libyan patients who were experiencing chronic pain during the time of the study. While, the exclusion criteria included those who, had been recently

subjected to surgical intervention, had psychiatric problems and refused to give at least verbal consent. patients who were unable to read or and write because of physical disability were assisted by the researchers. The study conducted during the period between May and October 2021.

Instruments

The participants asked to complete a set of two questionnaires. The first one is the brief pain inventory BPI which contains15 items. Four items to measure the pain severity at its minimal, worst (during the last day), average and current intensity by using a numeric rating scale of 0 to 10 with "0" indicates to no pain and "10" indicates the worst pain that can be imagine and six items to assess the pain impact on patient`s daily living activities namely; general activity, mood, walking ability, relation with other people, sleep, and work. Patients answer these questions on the same scales with "0"describe no impact and "10 "corresponds to complete impact. In addition to that, the patients can mark their painful sites on a figure of human body, mention their treatment or medication, estimate the percentage of pain relief by using a centigrade scale, mention their anti-pain therapies and medications and finally they can rate their pain severity on a visual analogue scale VAS[25].

The second section of the questionnaire collected data on personal and clinical characteristics such age, gender, marital status, educational level and taking or not of drugs other than those prescribed by a physician, medical diagnosis, exact pain duration and anatomical location.

Translation Procedures

According to the international test commission guidelines for translating and adapting tests and the guidelines for the process of cross-cultural adaptation of self-report measures,[26,27] the first and second authors did forward translate the original English version of the BPI individually into Arabic language. For any incompatibility between these two preliminary versions an

official English-Arabic translator was consulted. Then, an another certified Arabic -English translator who was unaware of the English version of the BPI reproduced the BPI English version.

Where there was mismatch between the backward translated and original versions, the choice of wards was discussed among the authors and translator until consensus was reached. The sensitivity of the Arabic version of the BPI to the Libyan culture was assessed by an anesthesiologist specialized in pain management, two nurses from the department of rheumatology and two physicians and one nurse from the department of oncology.

The experts were asked to rate the items of the BPI on a 5-point Likert scale (1=not culturally sensitive to 5=very culturally sensitive).

Statistical analysis

IBM SPSS statistics, version 28.0.0.0 was used to carry out all statistical analyses. Structural equation modeling carried out by using IBM SPSS Amos 26 Graphics to examine the model fit. Statistical significance level was set at 0.05.

The descriptive analysis included calculations of means, medians, modes, standard deviation (SD) and frequencies (absolute numbers, and percentages) to characterize patients demographically and clinically and to calculate pain intensity and pain interference scores among them.

The factor structure was evaluated by using a principal components method with direct oblimin rotation.

The reliability was tested by item-total analysis and by calculating Cronbach`s alpha coefficients for pain severity subscale items, pain interference subscales items and total BPI items and inter-item correlations of pain severity items and **interference items**.

  The construct validity was examined by computing correlations between severity and interference items using

Spearman r coefficients and correlations between the means of scores of subscales.
Association of BPI total scores with ratings on VAS was assessed for criterion related validity.
The concurrent validity was explored by calculating the correlation of the scores of the item asking about pain now with the ratings on VAS.

Results

Among 120 questionnaires screened for eligibility only five excluded from the research based on inclusion and exclusion criteria. From five excluded patients, two had recent surgery, one not Arabic language native speaker and two patients had uncompleted main parts of the questionnaires. Finally, the data of 115 participants were accepted and analyzed.

Personal and clinical characteristics

Almost all patients were outpatients (95%). approximately 55% of the patients were male. Most of the patients were older than 45years (66%), were married (73%) had at least secondary education (91%).The mode, and mean time for pain duration were 12 and 22.5 months respectively. Most frequent anatomical region affected by pain was lower limb (38%), followed by head and neck region (20%).Few patients (4%) reported that they experienced chronic pain in more than one site. One fifth of the patients were cancer patients and only 10% of the patients had **sport injuries**.

The mean pain severity ratings ranged between 3.6 for pain right now and 5.9 for pain at its worst, with only 2% of the patients rating their pain on average severe while, the interference items had ratings ranging between 3.8 for the relationships with people and 7.2 for the indoor and outdoor work. Table1shows the mean pain intensity and interference ratings.

All patients reported receiving pharmacological therapies with non-steroid anti-inflammatory drugs being most frequently used. The vast majority of the patients (93.8) reported more than 50%

pain alleviation with treatments, with a relief percentage mean ± SD of 74% ±11.6.

Table 1. Pain severity and interference ratings (n= 115)

Variable	Mean	SD
Severity		
Pain right now	3.5	1.1
Pain at its least during the last 24 hours	3.6	1.2
Pain at its worst during the last 24 hours	6.1	1.3
Pain on average	4.7	1.0
Interference		
Relationship with people	3.1	1.9
Mood	4.8	1.9
Sleep	5.8	1.3
Walking ability	6.3	2.1
Daily activity	6.6	1.8
Indoor and outdoor activity	7.2	1.9

Cultural sensitivity

The mean rating for cultural sensitivity was 4.8 for each item, some semantic modifications were recommended by the experts such as replacement of some words and cancellation of the item that asks about the interference of pain with the enjoyment of life. These recommendations were being taken in consideration and adopted in our final Arabic version.

Confirmatory factor analysis and model fit

Kaiser-Meyer-Olkin measure = 0.80, P <0.05 so that the factorability is assumed and could be determined.

Results of factor analysis are shown in table 2.Items of our version loaded on three meaningful factors: Items of the pain now, least pain, worst pain ,and pain on average loaded on first factor (Pain Severity),the items of relationships with people, mood, and sleep loaded on the second factor(Psychological Impact of Pain) and the items of walking ability, daily activity,

and indoor outdoor work loaded on the third factor (Pain Interference with Physical Activity).Eigen values of 4.37,1.71 and1.04 explained 72% of the variability.

The three factor model showed better fit after removing sleep. This an acceptable fit was evidenced by comparative fit index(CFI) of 0.843, goodness of fit index (GFI) of 0.926, root mean square error of approximation(RMSEA) of 0.076 and minimum discrepancy per degree of freedom (PCMIN/DF) of 1.659(P=0.025).

Construct validity

Correlations between the most items of pain severity and pain interference subscales were positive and significant. Spearman`s rho coefficient values are shown in table 3.

The means of the three subscales were computed.

The correlations between them were statistically significant and positive. Spearman`s rho coefficients ranged between 0.34 and 0.59 (P < 0.01).

Table 2. Factor Loadings Extracted by Principal Component Factor Analysis and Rotated by Oblimin with kaiser Normalization

Items	Factors extracted		
	Pain Severity	Psychological impact of pain	Pain Interference with Physical Activity
Pain right now	**0.79**	0.06	0.70
Least pain	**0.85**	0.18	0.35
Worst pain	**0.88**	0.21	0.50
Pain on average	**0.81**	0.31	0.28
Relationships with people	0.19	**0.88**	0.15
Mood	0.18	**0.89**	0.29
Sleep	0.29	**0.64**	0.28
Walking ability	0.26	0.32	**0.85**
Daily activity	0.46	0.26	**0.87**
Indoor and outdoor work	0.51	0.18	**0.89**

Factor ladings <0.55 are not bolded

Table 3. Correlations between severity and interference items

Items	Pain now	Least pain	Worst pain	Pain on average
Relationships with people	0.26*	0.15***	0.32*	0.31*
Mood	0.14***	0.21**	0.31**	0.35*
Sleep	0.28**	0.26**	0.28**	0.25**
Walking ability	0.43*	0.32*	0.36*	0.31*
Daily activity	0.63*	0.42*	0.49*	041*
Indoor outdoor activity	0.64*	0.42*	0.53*	0.43*

*Correlation significant at the 0.01 level. **Correlation significant at the 0.05 level. ***Correlation insignificant.

Reliability

Item-total analysis revealed that the items in our version are considered to be internally consistent as item- total correlation coefficients ranged between 0.3 and 0.8, P =0.001 (Table 4).

Table 4. Item-total analysis for Libyan-Arabic BPI version

BPI Item	Total BPI Score
Pain right now	0.82*
Least pain	0.43*
Worst pain	0.42*
Pain on average	0.53*
Relationships with people	0.64*
Mood	0.31*
Sleep	0.38*
Walking ability	0.32*
Daily activity	0.70*
Indoor and outdoor work	0.73*

*Item-total correlation coefficient, P< 0.01.
No negative correlations or correlation <0.3

The Cronbach`s α coefficient values were 0.86 for the severity items, 0.74 for the psychological interference items,0.84 for the physical interference items and 0.85 for all BPI items. The inter-item correlation values of the severity items were statistically significant and ranged between 0.79 for worst pain and 0.86 for pain on average. Deletion of any severity item did not significantly affect the Cronbach`s α coefficient for the severity subscale. The inter-item correlation values of the psychological interference items were statistically significant and ranged between 0.73 for mood and 0.81 for sleep. The inter-item correlation values of the physical interference items were also statistically significant and ranged between 0.74 for indoor out door work and 0.82for walking ability. Deletion of any interference item did not significantly affect the Cronbach`s α coefficient for the pertinent interference subscale (Table5).

Table 5. Assessment of internal consistency reliability in Arabic version of BPI

Pain severity items	Cronbach`s α if item deleted $\alpha^1 = 0.86$	Psychological interference items	Cronbach`s α if item deleted $\alpha^2 = 0.74$	Physical interference items	Cronbach`s α if item deleted $\alpha^2 = 0.84$
Pain right now	0.83	Relationship With people	0.77	Walking ability	0.82
Pain at its least	0.83	Mood	0.73		
Pain at its worst	0.79	Sleep	0.81	Daily activity	0.77
Pain on average	0.86			Indoor and outdoor activity	0.74

α^1 Cronbach`s α coefficient for the severity items .$\alpha^2$ Cronbach`s α coefficient for the interference items

Criterion related validity
The total BPI scores correlate positively and significantly with VAS scores (criterion related validity coefficient of 0.71, P=.001).

Concurrent validity
There was a positive and significant correlation between the score of the pain severity item asking about pain right now and the rating on the VAS (Spearman rho coefficient =0.71, P < 0.01). We also found significant correlation between the pain

intensities measured by VAS and the pain intensity subscale (Spearman rho coefficient =0.86, P < 0.01).

Discussion

No patients were in severe pain during the time of filling in the questionnaires, the mean, median and mode of current pain severity were 3.5, 4, 4 respectively.

The patients reported highest scores of pain interference with indoor outdoor work. This can be explained by that the most frequently pain sites were in an anatomical region of lower limbs. Least pain impact was on patient`s relationships with others, only 9.5% of patients rated the pain interference with their relationships with people as > 5. This may be attributed to that patients on average did not have high pain scores. Only 2% of patients experienced severe pain on average. So that their pain was not tremendous enough to affect their social ties. An alternative explanation for this minimal influence of pain on patient`s social relations is that the long duration of pain as mentioned above. Such chronicity may allow a patient to actively cope with pain.[28]

Our BPI version was culturally sensitivity depending on the opinion of experts and their ratings to the culture sensitivity questionnaire. Although many researches developed Arabic translated versions of the BPI.[23, 24,29] Nevertheless, no one of them is culturally sensitive for Libyan patients.[23]

Moreover, translation issues are not comparable with any of the earlier Arabic versions .[30]

Given the recommendation of the experts we have omitted the item which ask about enjoyment of life, yet the scale showed reasonable levels of reliability and validity.

The factor analysis outputs illustrated that our version has acceptable construct validity and three factor structure. Our findings regarding the factor structure of Libyan Arabic version are in line with that reported by few researchers,[31, 32, 33]

and inconsistent with other Arabic BPI validation studies.[23, 29, 34]

Such differences in the factor structure of BPI versions may reflect the difficulties could be encountered during the translation process.[29,32]Structural equation modeling demonstrated adequate model fit after removing sleep from the pain construct. Sleep was not contributed to the psychological impact subscale; this finding could be attributed to ability of patients to adapt with pain. [31]

The construct validity of our version were promoted by the results of correlations between the means of the scores of the **subscales.**

The Item- total correlation coefficients and Cronbach`s α coefficient values ensured considered level of internal consistency and good level of reliability for Libyan Arabic version of BPI. Test retest reliability was not evaluated. When there is difficulty to evaluate test retest reliability, statisticians estimate it by using internal consistency reliability.[35]

The inter-item correlation values of the severity items and

Interference subscales items revealed acceptable level of reliability. An alternative deletion of each item did not affect the Cronbach`s α coefficients for the subscales as well as for the BPI as a whole. This indicated that internal consistency of the scale does not depend on certain items. Our results regarding BPI reliability were comparable with those reported in previous studies .[23] [24] [28]

The criterion related validity was confirmed by positive and significant correlation between the scores of the VAS and those of the total BPI. In addition to that, concurrent or convergent validity proved by relevant significant correlations.

When we compared ratings on the numeric rating scale NRS of pain right now by VAS, the patients tended to score higher on the VAS. In our study, the mean ± SD of pain intensity scores measured by NRS of item asking about current pain was 3.6(SD ±, 1.1 and the mean ± SD of pain severity rated on the VAS was 5.3 ± 2.1. This finding in harmony with the Lebanese study[23]. The correlation between the average pain and percentage of pain improvement was negative and significant.

One of the outstanding limitations of this study is the convenience type of the selected sample the other is our inability to perform test retest reliability. further studies are needed to assess the long term stability of this version, clarify the impact of pain on patient`s social relations, mood and normal sleep pattern.

Conclusion

In conclusion, this study provided clinicians and researchers with a culturally sensitive, reliable, valid and clinically useful, multidimensional pain measure to assess pain in clinical settings and evaluate efficacy of different pain managing modalities. In addition to that, presence of internationally recognized pain measuring instrument with satisfactory psychometric properties will allow Libyan researchers to participate in multinational trials and compare their results with those of international studies.

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تقييم الخصائص السايكومترية لمقياس الألم الوجيز النسخة العربية بالنسبة للمرضى الليبيين الذين يعانون من الألم المزمن

ان الألم المزمن من الأعراض الشائعة وعلاجه بشكل صحيح يتطلب قياسه بدقة وذلك باستخدام مقياس معياري شامل تم التحقق من حساسيته الثقافية وخصائصه السايكومترية.

هكذا مقياس للألم لم يتم التأكد حتى الآن من مصداقيته وموثوقيته لدى المرضى الليبيين، لذلك كان الهدف من هذه الدراسة هو التحقق من الخصائص السايكومترية لمقياس الالم الوجيز النسخة العربية بالنسبة للمرضى الليبيين الذين يعانون من الآلام المزمنة.

بعد عملية الترجمة الي اللغة العربية واختبار الحساسية الثقافية تم توزيع مقياس الألم الوجيز النسخة العربية والمقياس البصري التناظري لقياس الألم على 120 مريضا يعانون من الألم المزمن.

اختبار العامل تم استخدامه لتقييم تركيب العامل للنموذج ومعامل كروباخ الفا تم استخدامه لتقييم الثبات الداخلي لأداة القياس.

اختبار الألم الوجيز وعامل شدة الألم تم اختبار صلاحيتهما مقابل المقياس البصري التناظري.

115 (96%) من المرضى كانوا مؤهلين للدخول في الدراسة.

تحليل العامل بين وجود تركيب من ثلاث عوامل وهي: شدة الألم وتأثير الالم على الوظائف البدنية وتأثير الالم على الوظائف النفسية. هذه العوامل فسرت 72% من الفروق.

قيم معامل كروباخ الفا كانت 0.86 بالنسبة لمؤشر شدة الالم و0.74 بالنسبة لمؤشر تأثير الالم على الوظائف النفسية و0.84 لمؤشر تأثير الالم على الوظائف البدنية و0.85 لمقياس الالم الوجيز النسخة العربية ككل.

قيم معامل الارتباط بين المقياس البصري التناظري وكل من مقياس الالم الوجيز ومؤشر شدة الالم ومفردة مؤشر شدة الالم التي تتساءل عن شدة الالم حاليا كانت 0.71, 0.86, 0.71 على التوالي (مستوى الدلالة اقل من 0.01).

استنتجنا من خلال هذه الدراسة ان لمقياس الالم الوجيز النسخة العربية خصائص سايكومترية جيدة تسمح باستخدامه كأداة لقياس الالم عند المرضي الليبيين.

قائمة المحتويات