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کلونیزاسیون هلیکوباکتر پیلوری در کودکان با هیپرتروفی آدنوتانسیل

نجمه دوست محمدیان^{۱*} (M.D)، نوید دانائی^۲ (M.D)، راهب قربانی^۳ (Ph.D)، نوشین رحیمی^۴ (M.D)

۱- بخش گوش و حلق و بینی، دانشگاه علوم پزشکی سمنان، سمنان، ایران

۲- بخش اطفال، دانشگاه علوم پزشکی سمنان، سمنان، ایران

۳- بخش آمار، دانشگاه علوم پزشکی سمنان، سمنان، ایران

۴- دانشگاه علوم پزشکی سمنان، سمنان، ایران

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* نویسنده مسئول، تلفن: ۰۹۱۲۵۱۱۶۹۱۳ n_dostmohammadin@yahoo.com

چکیده

هدف: هیپرتروفی آدنوتانسیل یکی از شایع ترین دلایل انسداد بینی در کودکان است. مطالعات اخیر برخی بیانگر کلونیزه شدن و برخی عدم کلونیزه شدن هلیکوباکتر پیلوری در بافت آدنوتانسیل می باشند. هدف این مطالعه، بررسی کلونیزاسیون هلیکوباکتر پیلوری در کودکان با هیپرتروفی آدنوتانسیل در منطقه سمنان بود.

مواد و روش ها: در این مطالعه توصیفی ۳۰ کودک مبتلا به هیپرتروفی آدنوتانسیل که در بخش گوش، حلق و بینی بیمارستان امیر المومنین (ع)، تحت جراحی آدنوتانسیلکتومی قرار گرفته بودند وارد مطالعه شدند. جهت بررسی کلونیزاسیون هلیکوباکتر پیلوری در بافت آدنوتانسیل، تست اوره آز سریع بر روی ۹۰ نمونه بافتی (۶۰ نمونه مربوط به لوزه ها و ۳۰ نمونه مربوط به بافت آدنوتاید) انجام شد.

یافته ها: میانگین سنی کودکان $8/9 \pm 2/6$ سال بود. نتیجه تست اوره آز سریع در ۱۵/۶٪ بافت ها (۱۴ نمونه) مثبت بود که به تفکیک ۶/۷٪ نمونه لوزه و ۸/۹٪ نمونه بافت آدنوتاید مثبت بود.

نتیجه گیری: در این مطالعه، ما کلونیزاسیون هلیکوباکتر پیلوری را در بافت آدنوتانسیلار یافتیم. برای اظهار نظر قطعی تر، استفاده از تست های آزمایشگاهی اختصاصی تر توصیه می شود.

واژه های کلیدی: هلیکوباکتر پیلوری، هیپرتروفی آدنوتانسیل، تست اوره آز سریع

مقدمه

هلیکوباکتر پیلوری (*Helicobacter Pylori*, HP) باکتری گرم منفی S شکل و میکروآئروفیلیک است که حدود ۳/۵ میکرون طول و ۰/۵ میکرون عرض دارد. این میکروب رشدی آهسته دارد و در درجه حرارت ۳۷ درجه سانتی گراد و اکسیژن ۵ درصد در مدت سه تا پنج روز رشد می کند و بعد از رنگ آمیزی میکروب به وضوح دیده می شود [۱]. این باکتری با استفاده از فاکتورهای کلیدی خود مانند اوره آز، کاتالاز، لیباز می تواند در مخاط معده و دئودنوم کلونیزه شود [۲].

هلیکوباکتر پیلوری به عنوان شایع ترین عفونت باکتریال در انسان شناخته شده است. این باکتری در سراسر جهان و در میان تمام سنین گسترش پیدا کرده و تخمین زده می شود بیش از نیمی جمعیت جهان را تحت تاثیر خود قرار داده است [۳]. در کشورهای در حال توسعه، قسمت اعظمی از کودکان قبل از سن ۱۰ سالگی به این میکروب آلوده می شوند و در بیش از ۸۰

درصد بالغین زیر ۵۰ سال نیز آلودگی به این میکروب مشاهده شده است. در مطالعه ای که توسط Abdol-monem و همکاران در مصر بر روی ۲۰ کودک ۲ تا ۱۰ ساله کاندید تونسیلکتومی و آدنوتانسیلکتومی انجام شد. RUT در ۱۶ (۵۳/۳٪) نمونه و PCR در ۵ (۱۶/۶٪) نمونه مثبت شد. براساس این یافته ها به نظر می رسد آدنوتاید می تواند مخزن خارج معده ای برای HP در کودکان علامت دار با آدنوتانسیلیت مزمن باشد [۴].

در مطالعه یارمحمدی و همکاران، ۱۰۰ نفر بیمار که تحت جراحی تونسیلکتومی یا آدنوتانسیلکتومی قرار گرفته بودند از لحاظ کلونیزاسیون هلیکوباکتر پیلوری در بافت لوزه یا آدنوتاید بوسیله تست اوره آز سریع مورد بررسی قرار گرفتند که نتایج نشان داد ۲۴ نمونه از ۵۹۰ نمونه (۴/۰۶٪) اوره آز مثبت داشتند که این ۲۴ نمونه مربوط به ۱۵ نفر از ۱۰۰ نفر مورد مطالعه بود [۵].

درمانی جدیدی را در این بیماران با درمان دارویی HP بیابیم که بتواند جایگزین جراحی شود. با توجه به این که آلودگی به این میکروب در کشورهای مختلف متفاوت است. بر آن شدید مطالعه‌ای در این زمینه در ایران و در سمنان انجام دهیم و میزان کلونیزاسیون HP را در بافت آدنوتانسیل در بیماران با هیپرتروفی آدنوتانسیلار را بررسی کنیم.

مواد و روش‌ها

این مطالعه یک مطالعه توصیفی ۳۰ نفر از کودکان ۵ تا ۱۵ ساله مراجعه‌کننده به درمانگاه کودکان و گوش و حلق و بینی بیمارستان امیرالمومنین (ع) سمنان (از تیرماه ۱۳۹۲ تا آذرماه ۱۳۹۲) که مبتلا به هیپرتروفی آدنوتانسیل بودند و تحت جراحی آدنوتانسیلکتومی قرار گرفته بودند وارد مطالعه شدند. مشخصات خروج از پژوهش شامل موارد زیر بود:

۱- کودک مبتلا به بیماری سیستمیک مزمن یا اختلالات آناتومیک باشد.

۲- کودک سابقه جراحی سر و گردن داشته باشد.

۳- کودک سابقه مصرف آنتی‌بیوتیک، بیسموت، داروهای ضدترشحاتی مثل آمپرازول از ۴ هفته قبل از آزمایش و یا انواع آنتی‌اسید و بلوکرهای H2 مثل سایمتیدین یا رانیتیدین را از ۷ روز قبل از آزمایش داشته باشد.

جهت بررسی کلونیزاسیون هلیکوباکتریلوری در بافت آدنوتانسیل، نمونه‌های تهیه شده از بافت آدنوتانسیل به طور جداگانه در ۳۰ بیمار با هیپرتروفی آدنوتانسیل که تحت جراحی آدنوتانسیلکتومی قرار گرفتند تحت آزمون اوره‌آز سریع قرار گرفت. تست اوره‌آز سریع، تستی جهت تشخیص هلیکوباکتریلوری می‌باشد. حساسیت و اختصاصیت این تست به ترتیب ۹۸٪ و ۹۷٪ است [۱۵]. در این آزمون نمونه بافتی داخل محلول اوره قرار گرفت. با توجه به این که هلیکوباکتر مقدار زیادی اوره‌آز تولید می‌کند می‌تواند اوره را به آمونیاک و دی‌اکسید کربن تجزیه کند، آمونیاک باعث تغییر PH محلول مورد آزمایش می‌شود، که با تغییر رنگ معرف مشخص می‌شود. نتیجه مثبت این آزمون با مشاهده تغییر رنگ محلول در ساعت اول و ۲۴ ساعت بعد از آن مشخص می‌شود.

نتایج

از ۳۰ کودک مبتلا به هیپرتروفی آدنوتانسیل مورد بررسی، ۶۶/۷٪ (۲۰ نفر) پسر و مابقی دختر بودند.

میانگین سنی کودکان $8/9 \pm 2/6$ سال بود. از ۹۰ نمونه بافتی، ۶۰ نمونه مربوط به لوزه‌ها (۳۰ نمونه مربوط به لوزه راست، ۳۰ نمونه مربوط به لوزه چپ) و ۳۰ نمونه مربوط به

در مطالعه Eiyrgo و همکاران در ترکیه در ۴۷ کودک، نمونه‌های بافت شناسی ۲۰ تونسیل و ۳۵ آدنویید با RUT, PCR آزمایش شدند. در پایان ۳ (۵/۵٪) نمونه با RUT مثبت بود اما تمام نمونه‌ها با PCR منفی گزارش شدند. محققین مطالعات بیشتر برای توضیح احتمال حضور HP در آدنوییدها را توصیه کردند [۶].

در مطالعه Sergio Vilarinho و همکاران در پرتغال با این هدف که آیا بافت آدنوتانسیلار ممکن است منبعی برای هلیکوباکتریلوری باشد، نمونه‌های تونسیل و آدنویید ۶۲ کودک که کاندید آدنوییدکتومی و یا تونسیلکتومی بودند را مورد آزمایش قرار دادند. از مجموع ۱۰۱ نمونه بافتی شامل ۵۵ آدنویید و ۴۶ تونسیل در نظر گرفته شده که از نظر وجود آنتی‌بادی هلیکوباکتریلوری با روش سرولوژی و اوره‌آز سریع و PCR مورد آزمایش قرار گرفتند، در نهایت ۳۹ نمونه بافتی از نظر سرولوژی مثبت و سه نمونه از نظر RUT و دو نمونه از نظر Immunohistochemistry مثبت گزارش شدند و همه نمونه‌ها از نظر PCR منفی بودند. آن‌ها نتیجه‌گیری کردند که بافت آدنوتانسیلار شامل هلیکوباکتریلوری نمی‌شود و روش‌های آنها حمایتی از کلونیزاسیون هلیکوباکتریلوری در بافت آدنوتانسیلار نمی‌کند [۷].

در مطالعه Wibawa و همکاران در اندونزی، ۱۹ بیمار مبتلا به تونسیلیت مزمن که جهت تونسیلکتومی الکتیو بستری شده بودند، براساس معیارهای B&G مورد بررسی قرار گرفتند و تست RUT و گرم و گیمسا روی همه نمونه‌های بافتی انجام شد. براساس این مطالعه تست RUT در بافت لوزه ۵/۵٪ از بیماران مثبت شد. هم‌چنین تست RUT در ۲/۲٪ از نمونه‌های بافت آدنویید بیماران مثبت گزارش شد اما هیچ یک از نمونه‌های بافتی تونسیلکتومی با روش ایمونوهیستولوژی مثبت گزارش نشد [۸].

در مطالعه Guclu و همکاران در ترکیه که بر روی ۷۰ نفر از کودکان و بزرگسالان مبتلا به تونسیلیت بر اساس کلونیزاسیون هلیکوباکتریلوری انجام شد، از ۴۹ بافت لوزه آزمایش شده ۲ نمونه بافت (۴/۱٪) با تست RUT و ۳ نمونه بافتی (۶/۱٪) با تست PCR مثبت گزارش شدند. هم‌چنین از ۵۲ نمونه بافت آدنویید تنها ۳ مورد (۵/۸٪) با تست PCR مثبت گزارش شد [۹].

تاکنون چندین مطالعه در این زمینه در کشورهای مختلف انجام شده است که برخی کلونیزاسیون HP در هیپرتروفی آدنوتانسیل را تایید [۶-۴] و برخی نیر رد می‌کنند [۱۴-۱۰]. چه بسا که با یافتن کلونیزاسیون هلیکوباکتریلوری در آدنوتانسیل در بیماران با هیپرتروفی آدنوتانسیلار، راه حل

بافت آدنویید بود. نتیجه تست اوره آز سریع ۱۵/۶٪ نمونه بافتی مثبت بود که به تفکیک ۶/۷٪ نمونه بافتی لوزه‌ها و ۸/۹٪ نمونه بافت آدنویید بوده است.

بحث و نتیجه گیری

تا کنون چندین مطالعه در کشورهای مختلف انجام شده است که نتایجی مبنی بر وجود کلونیزاسیون HP در بافت ادنوتانسیل رادر بیماران با هایپر تروفی آدنوتونسیلار بیان داشته اند [۴-۶]. Minocha و همکاران در مطالعه‌ی خود به این نتیجه رسیدند که بیمارانی که تحت تونسیلکتومی قرار گرفته‌اند، شیوع کلونیزاسیون هلیکوباکتر پیلوری در انتروم معده‌ی آنها کاهش یافته است. در واقع آنها بیان کردند که تونسیل ها به عنوان یک منبع برای هلیکوباکتر محسوب می‌شوند [۱۷]. در مقابل مطالعات متعددی وجود دارد که ارتباط بین HP و هایپر تروفیتونسیلار را زیر سوال می برد که در زیر به برخی اشاره می شود:

در مطالعه‌ی Yilmaz و همکاران، ارتباطی بین حضور HP و تانسلیت دیده نشد [۱۰]. Eiyrgo و همکاران با استفاده از روش RUT و PCR، نمونه‌های بافت شناسی ۲۰ تونسیل و ۳۵ آدنویید را با هدف تشخیص حضور HP تحت آزمایش قرار دادند که نتیجه حاصل از مطالعه تمام نمونه‌ها را با روش RUT مثبت و با تست PCR منفی گزارش کردند [۶]. در مطالعه دیگری که توسط Pitkanta و همکاران انجام شد، نتیجه کشت حاصل از نمونه‌های بدست آمده از عمل آدنوتونسیلکتومی کودکان منفی بوده و ۲۰ درصد بیماران تست سرولوژیک مثبت داشتند که در نهایت بیان داشتند HP نمی‌تواند در آدنویید حضور داشته باشد [۱۱]. محدودیت مطالعه Pitkanta و همکاران همانند بسیاری از مطالعات دیگر این است که از تست سرولوژیک برای تشخیص هلیکوباکتر پیلوری استفاده کرده اما با توجه به این که مشخص نیست که آنتی‌بادی بر علیه HP معده است یا HP در سطح بافتی لوزه، در این مورد قابل قضاوت نیست.

Jelavis و همکاران در مطالعه خود به این نتیجه رسیدند که بافت تانسیلار نمی‌تواند منبعی مهم برای HP در کودکانی تحت تونسیلکتومی قرار می‌گیرند باشد [۱۳]. Vayisoglu و همکاران با انجام تست‌های سرولوژیک و RUT برای کودکان دچار آدنوتونسیلیت مزمن نشان دادند که که Hp در بافت‌های آدنوتانسلیت مزمن کلونیزه نخواهد بود [۱۴]. در مطالعه‌ی علی اکبری و همکاران در ایران، تانسلیت مزمن را از نظر glmM و وجود rRNA هلیکوباکتر پیلوری مورد آزمایش قرار دادند. در نتایج حاصله کلونیزاسیون هلیکوباکتر پیلوری در بافت

تانسیلار گزارش نشد و مطالعه آنها حمایتی از نقش بافت آدنوتانسیلار به عنوان منبعی برای هلیکوباکتر پیلوری نمی‌کند [۱۸]. نتایجی مشابه در سایر مطالعات مبنی بر عدم وجود ارتباط بین هایپر تروفی آدنوتانسیلار و HP موجود می‌باشد [۸ و ۷]. در مطالعه پیش رو کلونیزاسیون هلیکوباکتر پیلوری در بافت ادنوتانسیل در بیماران با هایپر تروفی آدنوتانسیلار با انجام تست RUT بر روی نمونه های بافتی، مورد بررسی قرار گرفت. نتایج حاصل از مطالعه ما مشابه برخی مطالعات بوده است [۵ و ۴].

در مطالعه Peter و همکاران ۳۹ بیمار با تانسلیت راجعه که تحت تانسلیکتومی قرار گرفته بودند تحت تست اوره آز سریع قرار گرفتند. در این بیماران ۳۸/۵٪ نتیجه مثبت داشتند [۱۹]. در مطالعه دیگر بررسی HP در بافت ادنویید با استفاده از PCR، HP در ۸/۷٪ بیماران یافت شد [۲۰]. مطالعه Abdel-Monem و همکاران، ۳۰ کودک با تشخیص تانسلیت مزمن راجعه را مورد مطالعه قرار دادند و ۵۳/۳٪ تست مثبت اوره آز را در بیماران گزارش کردند که میزان شیوع بالاتر از مطالعه ما بود [۴]. در مطالعه Moghaddam و همکاران، کلونیزاسیون HP در ۲۵۸ کودک با شیوع ۱۴٪ را با تست اوره آز گزارش کردند [۲۱]. در مطالعه دیگر شیوع عفونت HP با تست اوره آز و بافت شناسی در بیماران با هایپر تروفی تانسیلار ۳۱/۴٪ بود [۲۲]. این تفاوت‌ها در مطالعات ممکن است در نتیجه تفاوت‌های مناطق جغرافیایی یا حساسیت متد استفاده شده باشد. نتایج حاصله می‌تواند بیان کننده این موضوع باشد که بافت ادنوتانسیل می‌تواند توسط هلیکوباکتر پیلوری کلونیزه شود. یکی از دلایل مثبت شدن می‌تواند آلودگی با بزاق باشد. اثبات شده که هلیکوباکتر پیلوری در پلاک‌های دندانی و بزاق وجود دارد [۲۳]. یکی از محدودیت های مطالعه ما این بود که بافت ادنوتانسیل می‌تواند توسط ارگانسیم‌های دیگر که دارای آنزیم اوره آز هستند، کلونیزه شود. این ارگانسیم‌ها تست اوره آز را مثبت می‌کنند و در مورد نتیجه باید با احتیاط برخورد شود و بهتر بود که نتیجه توسط آزمون دیگر مانند کشت، واکنش زنجیره پلی‌مراس (PCR)، هیستولوژی و ایمونوهیستوکمیکال تایید می‌شد. محدودیت دیگر مطالعه حاضر، حجم کم نمونه بود.

نتیجه‌گیری: در این مطالعه، ما کلونیزاسیون هلیکوباکتر پیلوری را در بافت ادنوتانسیلار یافتیم و بنابراین بافت ادنوتانسیل می‌تواند مخزنی برای هلیکوباکتر پیلوری باشد. این یک نتیجه‌گیری مهیج است که می‌تواند نگاه درمانی به بیماران با هایپر تروفی ادنوتانسیلار را تغییر دهد. البته برای

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اظهار نظر قطعی تر، استفاده از تست‌های آزمایشگاهی اختصاصی تر توصیه می شود.

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Prevalence of musculoskeletal disorders in Iranian dentists: A systematic review and meta-analysis

Yosra Azizpour (M.Sc)¹, Ali Delpisheh (Ph.D)², Kourosh Sayehmiri (Ph.D)^{*3}

1- Dept. of Clinical Epidemiology, Student Research Committee, Ilam University of Medical Sciences, Ilam, Iran

2- Dept. of Clinical Epidemiology, Psychosocial Injuries Research Center, Ilam University of Medical Sciences, Ilam, Iran

3- Dept. of Biostatistics, Psychosocial Injuries Research Center, Ilam University of Medical Sciences, Ilam, Iran

* Corresponding author. +98 Tel: +98 843 2235724 kouresh_sayehmiri@yahoo.com

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Introduction: Dentistry is a high risk profession according to musculoskeletal disorders. The aim of this study was to estimate the prevalence of these disorders in Iranian dentists using systematic review and meta-analysis.

Materials and Methods: National databases including: Magiran, IranMedex, Irandoc and international databases including: PubMed, Scopus, Web of science, ProQuest, web search engine Google scholar and the Eastern Mediterranean region base (IMEMR) with using keywords prevalence, musculoskeletal, dentists, and medical subject headings (Mesh), were searched. To assess the quality of cross-sectional studies, the JBI checklist (The Joanna Briggs Institute) was used. Considerably, heterogeneity between studies was assessed using the Cochran Q and I² tests. Data analyzed using the random effects model.

Results: A total of 12 studies with sample size n=1742 entered to the research. The point prevalence (during occupational), period prevalence (during one year) and prevalence during the seven-day of musculoskeletal disorders was estimated 73.4% (95% Confidence Interval (CI): 64.1-82.7), 77.3% (95% CI: 66.7-87.9) and 33.6% (95% CI: 6.5-60.8) respectively. The highest point prevalence 50% (95% CI: 43.8-56.3), period prevalence 63% (95% CI: 58.4-67.6) and during the seven- day prevalence 46.3% (95% CI: 7-85.6) of disorders was estimated in neck region.

Conclusion: The results show high prevalence of disorders in dentists, especially in the neck area. In order to reduce musculoskeletal disorders, resulting in the improvement of the level and quality of dentists' services, comprehensive plans should be designed and implemented at the national level.

Keywords: Dentists, Musculoskeletal System, Iran, Meta-Analysis.

A comparative study on effectiveness of acceptance and commitment therapy and logotherapy on symptoms of depression, anxiety and stress of women suffering relapsing remitting multiple sclerosis: A randomized controlled trial study

Azim Azimi (Ph.D student)¹, Shahrokh Makvand Hoseini (Ph.D)^{*2}, Mahmood Najafi (Ph.D)², Parvin Rafieenia (Ph.D)²

1- Dept. of Psychology, Semnan University, Semnan, Iran

2- Dept. of Clinical Psychology, Semnan University, Semnan, Iran

* Corresponding author. +98 9123072411 shmakvand@semnan.ac.ir

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Introduction: In recent years, psychological therapies increasingly used as complementary treatment along medication to help clinicians. The purpose of this study was to compare the effectiveness of two methods of group psychotherapy: Acceptance and commitment therapy (ACT) and logo therapy (LT) on the symptoms of anxiety, depression and stress in women with relapsing-remitting Multiple Sclerosis (RRMS).

Materials and Methods: A sampling method was used to select 45 women from multiple sclerosis patients in Kermanshah (Iran). They were randomly assigned into two groups of experimental and one control group (n = 15 in each group). The first experimental group received 8 group sessions of ACT treatment. The second experimental group received 10 group sessions of LT as well, while the control group had just 8 simple group meeting with the therapist. All subjects completed Anxiety, Depression, and Stress Scales (DASS-42) before, after and three months after the application.

Results: The mean of symptoms of anxiety, depression and stress in both experimental groups after intervention was significantly different with the mean of control group. However, no significant difference was observed between two experimental groups.

Conclusion: Logo therapy and ACT are effective in decreasing the symptoms of depression, anxiety and stress in women with RRMS and could be recommended as adjunct therapies along with their medication.

Keywords: Multiple Sclerosis, Logo Therapy, Acceptance and Commitment Therapy, Stress, Anxiety, Depression.

Prophylactic effect of misoprostol versus tranexamic acid in conjunction with oxytocin in reduction of post-partum hemorrhage after cesarean section: A randomized clinical trial

Sanam Moradan (M.D)¹, Roya Mahdavi Anaraki (M.D)¹, Majid Mirmohammadkhani (M.D, Ph.D)^{*2}

1 - Abnormal Uterine Bleeding Research Center, Semnan University of Medical Sciences, Semnan, Iran

2 - Social Determinants of Health Research Center, Semnan University of Medical Sciences, Semnan, Iran

* Corresponding author. +98 9125317634 Majidmirmohammadkhani@yahoo.com

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Introduction: Postpartum hemorrhage is an important complication and is a direct cause of maternal death and its effective prevention has a significant role in reducing complications, especially maternal mortality. In this way, the purpose of this study was to compare the prophylactic effect of the addition of misoprostol and tranexamic acid to oxytocin in reducing postpartum hemorrhage after cesarean section.

Materials and Methods: In a clinical trial, 285 pregnant women with gestational age of 38 to 39 weeks candidates for elective cesarean section enrolled in the study and were randomly assigned to three groups. After spinal anesthesia and cesarean section, immediately after clamping of the umbilical cord, patients in the first group received misoprostol 400 mcg rectal, patients in the second group received 10 mg/Kg tranexamic acid by intravenous infusion. First and second groups (as intervention groups) and third one (as control group) all received 30 units oxytocin during operation and 60 units within 12 hours after the section. Counting the gases was performed after the operation and measuring hematocrit levels 24 hours later.

Results: The mean \pm SD of age was 29.72 ± 3.8 years and was not significantly different in the three groups ($P = 0.171$) and 246 participants (84.4%) came for their second parity. The studied groups did not differ in parity number ($p = 0.170$). The average number of consumed gauzes was 6.99. Three groups were different in terms of consumed gauzes during section ($p < 0.001$). Mean of hematocrit before and after intervention showed significant differences in the three groups ($p < 0.001$). Intervention groups have a better effect on bleeding compared to control one in terms of hematocrit changes ($p < 0.001$), however, two misoprostol and tranexamic acid drugs showed no difference in reducing it ($p = 0.117$).

Conclusion: Adding each of the misoprostol or tranexamic acid to oxytocin alone has a better effect in reducing bleeding alone, but since the therapeutic effects of these two drugs are similar, it is necessary to select the drug according to the patient's clinical condition and possible side effects of either drug.

Keywords: Misoprostol, Tranexamic Acid, Postpartum hemorrhage, Cesarean section.

Effectiveness of acceptance and commitment therapy on the fear of cancer recurrence and post-traumatic growth among patients with breast cancer

Mohammad-Sadegh Sarizadeh (Ph.D Student), Sara Mozaffari (M.Sc), Isaac Rahimian Boogar (Ph.D)*
Dept. of Clinical Psychology, Faculty of Psychology and Educational Sciences, Semnan University, Semnan, Iran

* Corresponding author. +98 2333623300 i_rahimian@semnan.ac.ir

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Introduction: Breast cancer is one of the most common chronic diseases and the second leading cause of death among women with many physical and psychological complications requiring appropriate treatment. Therefore, the aim of this study was to evaluate the efficacy of acceptance and commitment therapy on the fear of cancer recurrence and post-traumatic growth in patients with breast cancer.

Materials and Methods: This study was a quasi-experimental design with pretest, posttest in the experimental and control groups. Among breast cancer patients referred to the Association of Cancer Patients Koomesh, 20 breast cancer patients were selected and randomly assigned into experimental (n=10) and control (n=10) groups. Fear of cancer recurrence (FCRI) and post-traumatic growth (PTG) questionnaires completed by patients in two stages: before and after intervention.

Results: Results of multivariate covariance analysis showed significant differences in the fear of cancer recurrence ($P = 0.026$) and Post-traumatic growth ($P = 0.005$) among two groups.

Conclusion: Considering the impact on acceptance and commitment therapy in fear of cancer recurrence and post-traumatic growth on the breast cancer patients can use this intervention to improve the psychological problems of patients with breast cancer.

Keywords: Breast Neoplasms, Psychotherapy, Local Neoplasm Recurrence, Psychological Adaptation.

Effects of intermittent and continuous injections of oxytocin on labor time and maternal and neonatal outcomes in normal delivery

Maryam Sina (M.D)^{1,2}, Mozghan Rahmanian (M.D)^{*1}, Majid Mirmohammadkhani (Ph.D)³

1 - Abnormal Uterine Bleeding Research Center, Semnan University of Medical Sciences, Semnan, Iran

2 - Student Research Committee, Semnan University of Medical Sciences, Semnan, Iran

3 - Social Determinants of Health Research Center, Semnan University of Medical Sciences, Semnan, Iran

* Corresponding author. +98 9121317830 rahmanian_74@yahoo.com

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Introduction: Several studies have shown that long-term use of oxytocin for inducing or enhancing labor can reduce the efficacy of induction and increase the rate of complications. The aim of this study was to compare the effect of intermittent and continuous injection of oxytocin on labor time and maternal and neonatal outcomes in normal delivery.

Materials and Methods: In this study, 140 patients with an age range of at least 14 and a maximum of 40 years (mean 26.94) were studied. Patients received 10 units of oxytocin at 1000 cc of ringer, initiated at a dose of 2 mU/min, and 2 mU/min was increased every 15 minutes to achieve uterine contractions of 3 to 5 contractions in 10 minutes or a maximum dose of 23 mU/min. At the beginning of the active phase (dilatation 4 cm), the patients were divided into 2 groups. In one group, oxytocin continued until delivery, and in the other group at the beginning of the active phase, oxytocin was discontinued.

Results: No significant differences were found between intermittent and continuous oxytocin injected groups in the duration of active phase and Apgar score, cesarean section, admission to NICU and postpartum fever. Also, there was no relationship between the incidence of abnormal heartbeat and postpartum hemorrhage the method of oxytocin administration. Only the duration of labor in the intermittent group was significantly higher than the continuous infusion group.

Conclusion: This study demonstrates that continuous injections of oxytocin shorten the length of delivery, and consequently reduce the possible complications caused by prolonged time of injection.

Keywords: Oxytocin, Labor, Baby, Natural Delivery

Postoperative net survival of gastric adenocarcinoma at Imam Khomeini hospital in Tehran: Estimating in a relative-survival framework

Fatemeh Paknazar (Ph.D)¹, Mahmood Mahmoudi (Ph.D)^{*2}, Kazem Mohammad (Ph.D)², Hojjat Zeraati (Ph.D)², Mohammad Ali Mansournia (M.D)², Mahdi Yaseri (Ph.D)², Amir Molaee (M.D)³

1 - Nursing Care Research Center, Semnan University of Medical Sciences, Semnan, Iran

2 - Dept. of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

3- Dept. of Surgery, School of Medicine, Semnan University of Medical Sciences, Semnan, Iran

* Corresponding author. +98 2188989127 mahmoodim@tums.ac.ir

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Introduction: Adenocarcinoma is the most common form of gastric cancer with relatively high mortality and morbidity in Iran. In this way, the aim of this study was to estimating postoperative net survival for patients with gastric Adenocarcinoma in Iran in the context of relative survival regarding its value and accuracy as a useful indicator.

Materials and Methods: Data analysis was performed on gastric adenocarcinoma patients undergoing curative surgical treatment followed by subsequent supplementary therapies in Imam Hospital in Tehran during the years 1995 to 1999 (follow up to 2004). While describing the data with frequency and life table, the net survival of 1- to 5-year was estimated via the multiple models based on the underlying factors using stata software.

Results: Data of 281 patients with a mean age of 66.0 ± 10.8 (200 males and 81 females) with gastric Adenocarcinoma followed up for a maximum of 10 years was used. Among all 214 patients (76.2%) were diagnosed at stages 3 and 4 of the disease. Noticeably, the survival of 1- and 5- year for patients was 68.27 (95% CI: 62.17 - 73.69) and 22.17 (95% CI: 16.39-28.63), respectively. The minimum amount for the specific survival rate was 77.76% for the time interval of 1 to 1.5 years.

Conclusion: The risk of death from this illness is more likely to occur within 1 to 2 years after surgery. While statistical healing can be considered to be from the seventh year onwards. Patients diagnosed at higher stages and who use less complementary therapies have less survival.

Keywords: Adenocarcinoma, Stomach Neoplasms, Life Table, Survival, Relative Survival.

Prognostic factors of colorectal cancer based on weibull distribution with nonconstant shape

Haleh Aghamolaey (M.Sc)¹, Ahmad Reza Baghestani (Ph.D)^{*2}, Farid Zayeri (Ph.D)¹, Soraya Moamer (M.Sc)¹

1 - Departement of Biostatistics, Faculty of Paramedical Siences, Shahid Beheshti University of Medical Siences, Tehran, Iran

2 - Assistant professor, Physiotherapy Research Center, Department of Biostatistics, Faculty of Paramedical Siences, Shahid Beheshti University of Medical Siences, Tehran, Iran

* Corresponding author. +98 9121711548baghestani.ar@gmail.com

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Introduction: The commonest malignant cancer in the lower gastrointestinal tract is colorectal cancer which is the third cause of death due to cancer in the world. The incidence of this type of cancer in Iran has increased during last recent years. The present study aimed to determine prognostic factors of colorectal cancer based on weibull distribution with nonconstant shape.

Materials and Methods: In this article we analyzed survival of 1060 patients with colorectal cancer who registered in Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences (Tehran, Iran) from 2004 to 2015. Weibull parametric model with non-constant shape parameter were used for determination of prognostic factors. The results were compared to regular Weibull distribution and the best method were chosen based on AIC criteria.

Results: On constant shape parameter, age at diagnosis, tumor size and the tumor site had effect on survival time with AIC of 20037. On non-constant shape parameter, sex, age at diagnosis, tumor size, the tumor site and the body mass index were significant on survival of these patients with AIC of 19994.

Conclusion: Remarkably, based on these data and AIC criteria, the Weibull with non-constant shape parameter chose so that sex, age at diagnosis, tumor size, the tumor site and the body mass index of these patients were recognized as prognostic factors in their survival.

Keywords: Colorectal Cancer, Non-Constant Shape Parameter, Prognostic Factor, Survival Analysis, Weibull Distribution.

Vocal complaints and risk factors in practitioners of speech-language pathology

Sediqe Safaeyan (M.Sc)¹, Mohammad-Sadegh Jenabi (M.Sc)^{*1}, Mohammad Kamali (Ph.D)², Masoud Roudbari (Ph.D)³, Yoones Amiri-Shavaki (Ph.D)^{*1}

1 - Department of speech and language pathology, School of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, Iran

2 - Department of rehabilitation management, School of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, Iran

3- Department of Biostatistics, School of Public Health, Iran University of medical Sciences, Tehran, Iran

* Corresponding author. +98 21 22228051 amiriyoony@yahoo.com

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Introduction: Speech-Language Pathologists (SLPs) are a group of professional voice users which their main professional tool is their voice. With respect to the dependence of their professional continuity and quality of life to their optimal voice, the research aim selected as study of frequency of vocal complaints and its relation with risk factors.

Materials and Methods: Risk factors and vocal complaints' data of 71 employed SLPs (14 men and 57 women) with at least 3 years of clinical experience gathered with two questionnaires. Face and content validity of the Questionnaires was confirmed with item effect and Lawshe methods, respectively. Reliability confirmed with internal consistency method. Participants divided into two groups with and without vocal complaints, by having at least one complaint or not, respectively. Descriptive and logistic regression was used by SPSS21.

Results: Frequency of vocal complaints was 73.2%, and most frequent was hoarseness (52.1%). Most frequent risk factors were psychological problems (60%), talking a lot (59.6%), and digestive problems (34.6%). Frequency of digestive problems were significantly more in vocal complaint group ($P=0.014$). History of digestive problems was a predictor of vocal complaint ($P = 0.048$, $OR = 8.5$).

Conclusion: SLPs experience a lot of psychological and digestive problems and also talking a lot. Presence of digestive problems can increase the probability of vocal complaint. Compatibility of these findings with findings of some other researches shows the necessity of more attention to these factors.

Keywords: Speech Language Pathology, Risk Factors, Digestive System Abnormalities, Hoarseness

Determination of risk factors for predicting pulmonary embolism using Bayesian networks

Farzaneh Feizmanesh (M.Sc)¹, Ali Asghar Safaei (Ph.D)^{*1}, Keivan Gohari Moghadam (M.D)²

1- Department of Medical Informatic, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran

2- Department of Internal Medicine, Pulmonary Disease Ward, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

* Corresponding author. +98 2182884581 aa.safaei@modares.ac.ir

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Introduction: Pulmonary embolism is the third leading cause of cardiovascular death after Myocardial infarction and stroke. At the same time, it is the most preventable cause of death for hospitalized patients. Importantly the diagnosis and prediction of pulmonary embolism requires flexible decision-making models, both for the presence of clinical interventions as well as for the variety of local diagnostic resources, Bayesian networks that fully meet these needs. Accordingly determining the risk factors for pulmonary embolism in hospitalized patients and presenting the model for predicting its occurrence through modeling using Bayesian networks have been proposed as a therapeutic necessity.

Materials and Methods: The present research is descriptive-analytic study. The data used in the study included risk factors affecting the pulmonary embolism and the history of hospitalized patients in pulmonary section of Shariati hospital in Tehran were collected in Excel format. Bayesian prediction model in two modes (risk factors determined using the proposed scenario and risk factors according to the expert physician) is obtained using GENIE software and the accuracy of the diagnosis of pulmonary embolism was evaluated.

Results: The results showed that among the risk factors of the disease, the history of thromboembolic pulmonary, history of deep vein thrombosis, body mass index above 30, recent surgery, immobilization of long-term, SLE, antiphospholipid syndrome, heart failure and pneumonia respectively, are the most important risk factors for pulmonary embolism. And the model predicts the scenario proposed has better performance.

Conclusion: Such plans can facilitate the process of assessing the risk of pulmonary embolism in hospitalized patients, in order to facilitate appropriate preventive measures, and to improve preventive methods and, consequently, diagnosis and treatment programs.

Keywords: Pulmonary Embolism, Prognostic, Bayesian Networks, Prediction Model, Risk Factors.

Comparison of syntactic comprehension and illness severity in Persian-speaking patients with Parkinson's disease

Ehsan Hesami pilerood (M.Sc)¹, Morteza Farazi (Ph.D)^{*1}, Farzad Ashrafi (M.D)², Zahra Ilkhani (B.Sc)³

1 - Speech Therapy, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

2 - Associate professor of Shahid Beheshti University of Medical Sciences, Tehran, Iran

3- Master student of Isfahan University of Medical Sciences, Isfahan, Iran

* Corresponding author. +98 9121405628 mfarazi80@gmail.com

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Introduction: The relationship between brain and language has always been one of the most important questions in the field of neurology. Most of these studies emphasize the importance of the cerebral cortex in language processing. Importantly, due to limited studies on the importance of subcortical structures in the representation of language, further clinical studies are necessary in this regard. The purpose of this study was to compare the syntactic comprehension and illness severity in Persian-speaking patients with Parkinson's disease.

Materials and Methods: This cross-sectional descriptive-analytic study was performed using the MMSE questionnaire, Bilingual aphasia test (BAT) and the UPDRS Parkinson's illness severity checklist and Modified Hoehn and Yahr Staging checklist. Participants in this study included 20 patients with Parkinson's disease and 20 normal elderly and data were analyzed using SPSS 20 software.

Results: The findings of this study indicate that there is a significant difference between the two groups of Parkinson's and normal people in syntax comprehension. There was also a statistically significant difference between mean scores of syntactic comprehension in different stages of the disease.

Conclusion: In this study, it was found that as the disease progression, the syntactic comprehension of the patient is reduced.

Keywords: Parkinson's Disease, Comprehension, Language Disorder, Language, Iran.

Effect of Hatha Yoga exercises on quality of life in patients under hemodialysis

Elaheh Mahmoodi (M.Sc)¹, Vida Shafipour (Ph.D)², Hedayat Jafari (Ph.D)^{*3}, Reza Alimohammadpour (Ph.D)⁴, Einollah Mollaei (M.Sc)⁵

1 - Student of Critical Care Nursing, Student Research Committee, Mazandaran University of Medical Sciences, Sari, Iran

2 - Assistant Professor, Department of Medical-Surgical Nursing, Nasibeh School of Nursing & Midwifery, Mazandaran University of Medical Sciences, Sari, Iran

3 - Assistant Professor, Traditional and Complementary Medicine Research Center, Mazandaran University of Medical Sciences, Sari, Iran

4 - Associate Professor, Department of Biostatistics, Health Sciences Research Center, School of Health, Mazandaran University of Medical Sciences, Sari, Iran

5 - Instructor, Booyeh School of Nursing and Midwifery, Golestan University of Medical Sciences, Gorgan, Iran

* Corresponding author. +98 9111513031 jafarih2010@gmail.com

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Introduction: Patients under hemodialysis (HD) experience lower quality of life. Although positive effect of Hatha Yoga exercises on QoL have been showed, it has not been investigated among patients under HD. Thus, the aim was to determine the effect of Hatha Yoga exercises on quality of life in patients under HD.

Materials and Methods: In this randomized controlled clinical trial, 32 patients under HD in the 5 Azar tertiary hospital in Gorgan (Iran) in 2016 were selected according to inclusion criteria and were divided into two groups of intervention and control by simple randomization method. For data collection, demographic and clinical data form and SF-36 quality of life questionnaire were used. The intervention group did Hatha Yoga exercises for twice a week, 45-minute for each time during 12 weeks. The control group received no intervention. Relatively, quality of life was assessed before and at the end of the study.

Results: Demographic and clinical data did not differ significantly between the two groups at the beginning of the study ($P > 0.05$). Mean of quality of life score for physical aspect in intervention and control group was 60.69 ± 16.14 and 48.48 ± 25.05 ($P = 0.112$) and for psychological aspect was 63.03 ± 12.74 and 51.02 ± 19.44 ($P = 0.048$), respectively that only was significantly different in the psychological aspect.

Conclusion: Findings showed that Hatha Yoga exercise can improve quality of life in patients under HD in the psychological aspect.

Keywords: Yoga, Exercise, Quality of Life, Hemodialysis.

Relationship between shiftwork with hypercholesterolemia in Isfahan's Mobarakeh Steel Company staff using random effects and marginalized random effects models

Roghayyeh Hassanzadeh (M.Sc Student)¹, Anoshirvan Kazemnejad (Ph.D)^{*1}, Farid Zayeri (Ph.D)²

1 - Department of Biostatistics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran

2 - Proteomics Research Center and Department of Biostatistics, Faculty of Paramedical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran

* Corresponding author. +98 9121088097 Kazem_an@modares.ac.ir

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Introduction: Disorders of blood lipids (Dislipidemia) are one of the most important risk factors for cardiovascular disease. Due to the high prevalence of impaired blood lipids, it is important to identify the factors that affect this health issue. Some researchers believe that shifting the cholesterol in the industrial sector has a role to play. The purpose of this study was to investigate the relationship between shifting and high cholesterol in employees of Mobarakeh Steel Company in Isfahan (Iran).

Materials and Methods: This historical cohort study was conducted on 7677 male staff of Isfahan's Mobarakeh Steel Company during 2005 – 2015. The data was gathered using the recorded information in the periodic medical examination files. In this study, we fitted usual random intercept and the marginalized random intercept models for assessing the effect of shiftwork on hypercholesterolemia. Correspondingly, estimates were adjusted for age, body mass index (BMI) and smoking status. Finally, the goodness of fit indices for these models was compared. Statistical analyses were performed using the SAS software version 9.3 and R software version 2.8.1.

Results: A total of 7677 staff including 4372 (56.9%) shiftworker and 2429 (31.6%) hypercholesterolemia was studied. After adjusting for age, body mass index (BMI) and smoking status, we found no significant relationship between shiftwork and hypercholesterolemia, using both the random effects and marginalized random effects models. In Random effects model; age ($P < 0.0001$), smoking status ($P = 0.0010$), BMI ($P < 0.0001$), and in marginalized random effect model; age ($P = 0.0001$), smoking status ($P = 0.0006$), BMI ($P < 0.0001$) effects were significant.

Conclusion: In this study, there is no significant relationship between shifting and high cholesterol intake. The lack of a meaningful relationship may be due to the recruitment of healthy employees by shift work. Generally, in order to obtain more reliable results, it is suggested that other studies with a larger sample size in different industries (multicentric studies) be adjusted and more variables are adjusted, such as the length of staff shift, overtime, etc.

Keywords: Shiftwork Schedule, Hypercholesterolemia, Statistical Models, Random Effects Model.

Helicobacter pylori colonization in children with Adenotonsillar hypertrophy

Najmeh Dostmohammadian (M.D)^{*1}, Navid Danaee (M.D)², Raheb Ghorbani (Ph.D)³, Nooshin Rahimi (M.D)⁴

1- Dept. of Otorhinolaryngology, Semnan University of Medical Sciences, Semnan, Iran

2 - Dept. of Pediatric, Semnan University of Medical Sciences, Semnan, Iran

3 - Social Determinants of Health Research Center, Semnan University of Medical Sciences, Semnan, Iran

4 - Semnan University of Medical Sciences, Semnan, Iran

* Corresponding author. +98 Tel: +98 9125116913 n_dostmohammadian@yahoo.com

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Introduction: Adenotonsillar hypertrophy is one of the most common causes of upper airway obstruction in children. Recent studies have shown colonization or not colonization of helicobacter pylori (HP) in adenotonsillar tissue. According to this, we decided to make a study in this field and investigate HP colonization in children with adenotonsillar hypertrophy in semnan city.

Materials and Methods: In this study, in ENT department of Amir al Moemenin Hospital in Semnan, Iran 30 patient with adenotonsillar hypertrophy, were surgically adenotonsillectomy, introduced in this study. For investigating colonization of HP, Rapid Ureas Test was done on 90 specimens (60 Tonsillar specimens and 30 Adenoid specimens).

Results: Mean±SD of age of children was 8.9 ±2.6. Rapid Ureas Test in 14 (15.6%) specimens, 7/6% tonsil biopsy and 9/8% adenoid specimens were positive.

Conclusion: In this study, we have found colonization of HP in adenotonsillar tissue. However, more special tests are needed to provide a definitive judgment.

Keywords: Helicobacter Pylori, Adenotonsillar Hypertrophy, Rapid Ureas Test.

Effect of educational intervention based on social cognitive theory on promoting preventive behaviors of cutaneous leishmaniasis

Ehsan Vesali Monfared (M.Sc)¹, Roya Sadeghi (Ph.D)^{*1}, Mohammad Mehdi Sedaghat (Ph.D)², Abedin Saghafipour (Ph.D)³, Azar Tol (M.Sc)¹, Mehdi Yaseri (Ph.D)⁴

1 - Dept. of Health Education and Promotion, School of Public health, Tehran University of Medical Sciences, Tehran, Iran

2 - Dept. of Medical Entomology and Vector Control, School of Public health, Tehran University of Medical Sciences, Tehran, Iran

3- Dept. of Public Health, Faculty of health, Qom University of Medical Sciences, Qom, Iran

4- Dept. of Biostatistics, School of Public health, Tehran University of Medical Sciences, Tehran, Iran

* Corresponding author. +98 2188989128 sadeghir@tums.ac.ir

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Introduction: Cutaneous leishmaniasis (CL) is an endemic disease in Ghanavat of Qom province. This study aimed to determine effect of educational intervention based on social cognitive theory on promoting preventive behaviors of CL disease.

Materials and Methods: This study was a semi-experimental intervention (quasi-experimental) that was performed on 292 patients referred to ghanavat health centers in Qom province during the years 2016-2017. Then, participants divided randomly in two groups with complete block randomization method. Six months after the training, post tests were completed by both interventional and control groups. The linear regression used to investigation the effect of several variables.

Results: After the intervention, in treated group, the mean score of the structures of knowledge and situations perception, outcome expectations ($p < 0.001$), self-sufficiency ($p < 0.003$), self-control ($p < 0.005$) and performance ($p < 0.05$) of Social Cognitive Theory in term of promotion of preventive behaviors of CL, a significant relationship was observed. But, a significant relationship was not found between the structure outcome value and promotion of preventive behaviors of the disease ($p < 0.103$).

Conclusion: People were not well aware of ways to prevent disease. Therefore, in order to promote this structure, it is suggested that social cognitive theory can be used to reduce the barriers in the education program and promote the level of community awareness.

Keywords: Cutaneous Leishmaniasis, Social Cognitive Theory, Preventive Behaviors, Health Behavior

Psychometric assessment of somatic symptoms experiences instrument based on DSM-5

Sohrab Amiri (Ph.D)¹, Jamali, Yosef (Ph.D)^{*2}

1 – Dept. of Psychology, Urmia University, Urmia, Iran

2 - Allameh Tabataba'ei University, Tehran, Iran

* Corresponding author. +98 9187058990 Amirysohrab@yahoo.com

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Introduction: This study aimed to evaluate the psychometric properties of somatic symptoms experiences questionnaire based on Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

Materials and Methods: For this purpose, 416 students were selected by using multi-stage cluster sampling, then Somatic Symptoms Experiences Questionnaire (SSEQ), General Health Questionnaire (GHQ) and Silver Lining Questionnaire (SLQ) were distributed among them to respond. After collecting data to determine the psychometric properties of the SSEQ, initially validity of the scale was assessed by Cronbach's alpha, retest and splitting coefficient, the criterion validity with GHQ and SLQ. As well as its factor structure was assessed by using exploratory and confirmatory factor analysis.

Results: The results of the factor analysis indicated that the SSEQ has four factors, check the validity of the scale by using Cronbach's alpha, retest and splitting coefficient reflects the stability of the scale, the criterion validity of the questionnaire with other questionnaires showed desirable discriminant and convergence validity.

Conclusion: Conclusively, the findings indicated that the SSEQ has good psychometric properties, and this tool can be used in studies in the normal population.

Keywords: Somatoform Disorders, Questionnaires, Validity, Reliability, Factor Analysis.

Determining validity and reliability of the Persian version of activities-specific balance confidence scale for elderly

Vali Ollah Kashani (Ph.D)^{*1}, Maryam Zarifkar (MA)², Zakiyeh Alinaghipoor (MA)²

1 - Department of Sport Sciences (Motor Behavior Section), Faculty of Humanities, Semnan University, Semnan, Iran

2 - Department of Sport Sciences (Motor Behavior Section), Faculty of Humanities, Semnan University, Semnan, Iran

* Corresponding author. +98 9128328266 Amirysohrab@yahoo.com

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Introduction: Due to the phenomenon of aging and the inevitable problems that will occur in the process, a convenient tool for assessing the balance confidence of the daily activities is required. Therefore the purpose of this study was to determine the validity and reliability of the activities-specific balance confidence scale for elderly Persians.

Materials and Methods: In this study 170 women and men (woman: 75 and man: 95) were selected by cluster random sampling to complete the Persian version of the Activities-specific Balance Confidence Scale for the elderly. The Cronbach alpha coefficient was used to determine the internal consistency while intra-class correlation coefficient under test-retest method was utilized to assess temporal reliability.

Results: Confirmatory factor analysis based on structural equations was used for validation of the structure of the questionnaire. The results showed that the activities-specific balance confidence scale for elderly Persians had an acceptable fit index (RMSEA = 0.08, CFI = 0.99, TLI = 0.99), internal consistency (0.92) and temporal reliability (0.83), indicating good validity and reliability of the Persian version of the activities-specific balance confidence scale for elderly Persians.

Conclusion: Balance confidence scale for elderly Persians has acceptable validity and reliability among Iranian adults and can be potentially used as a valid and reliable instrument by researchers.

Keywords: Psychometric Properties, Internal and Temporal Reliability, Activities-Specific, Balance Confidence Scale, Elderly Persians