Validity and reliability of the Turkish version of the pressure ulcer prevention knowledge assessment instrument

Zeliha Tulek a,*, Cansu Polat a, Ilknur Ozkan b, Dimitris Theocharidis c, Rifat Erdem Togrol b, d

a Istanbul University Florence Nightingale Faculty of Nursing, Istanbul, Turkey
b Haydarpasa Hospital of Gulhane Military Medical Academy, Istanbul, Turkey
c Alexandreio Technological Educational Institute of Thessaloniki, Thessaloniki, Greece
d Gulhane Military Medical Academy, Faculty of Medicine, Istanbul, Turkey

Article info
Article history:
Received 18 April 2016
Received in revised form
10 August 2016
Accepted 14 September 2016

Keywords:
Pressure ulcer
Pressure ulcer prevention: knowledge assessment instrument
Validity
Reliability

Abstract
Study aim: Sound knowledge of pressure ulcers is important to enable good prevention. There are limited instruments assessing pressure ulcer knowledge. The Pressure Ulcer Prevention Knowledge Assessment Instrument is among the scales of which psychometric properties have been studied rigorously and reflects the latest evidence. This study aimed to evaluate the validity and reliability of the Turkish version of the Pressure Ulcer Prevention Knowledge Assessment Instrument (PUPKAI-T), an instrument that assesses knowledge of pressure ulcer prevention by using multiple-choice questions.

Materials and methods: Linguistic validity was verified through front-to-back translation. Psychometric properties of the instrument were studied on a sample of 150 nurses working in a tertiary hospital in Istanbul, Turkey.

Results: The content validity index of the translated instrument was 0.94, intra-class correlation coefficients were between 0.37 and 0.80, item difficulty indices were between 0.21 and 0.88, discrimination indices were 0.20–0.78, and the Kuder Richardson for the internal consistency was 0.803.

Conclusions: The PUPKAI-T was found to be a valid and reliable tool to evaluate nurses’ knowledge on pressure ulcer prevention. The PUPKAI-T may be a useful tool for determining educational needs of nurses on pressure ulcer prevention.

1. Introduction
A pressure ulcer is a localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shearing [1]. Pressure ulcers are regarded as a major challenge in contemporary healthcare globally, resulting in complications and in turn causing prolonged hospital stays and increased healthcare costs [2,3].

In spite of being preventable, pressure ulcers are a common clinical problem in many hospitals and nursing homes around the world. The incidence and prevalence of pressure ulcers vary according to the data collection method, classification system used and patient populations. The incidence rate ranges from 7% to 71.6% while prevalence rates range from 8.8% to 53.2% [4]. Several studies have shown that the incidence of pressure ulcers is 0.4%–38% in acute care, 2.2%–23.9% in long-term care and 0.0%–17% in home care; while the prevalence is 10%–18% in acute care units, 2.3%–28% in long-term care units and 0.0%–29% in home care [1,5].

Currently in Turkey, some epidemiological studies on pressure ulcers are currently being conducted. According to results on a Turkish university hospital, prevalence ranged from 2.5% to 10.4% [6] while incidence rate was reported to be 1.9%. In a single study conducted in an intensive care unit the prevalence rate was found to be 5.9% [7]. Yet, in a survey of all adult intensive care units in the city of Istanbul, prevalence was found to be 39.5% and 26.3% when stage 1 ulcers were excluded [8].

Pressure ulcers are known to have substantial impact on patient outcomes and costs and can lead to further complications, often resulting in prolonged hospital stay. Thus, patients who develop pressure ulcers have a significantly longer hospital stay [9,10]. In terms of the financial burden, the cost of pressure ulcer treatments per patient in the UK is reported to be £1214 for stage 1 and £14.108

* Corresponding author. Istanbul Universitesi Florence Nightingale Hemsirelik Fakultesi, Abidei Hurriyet Cd., 34387, Sisli, Istanbul, Turkey.
E-mail addresses: tulekz@yahoo.com, ztulek@istanbul.edu.tr (Z. Tulek).

http://dx.doi.org/10.1016/j.jtv.2016.09.001
0965-206X/© 2016 Tissue Viability Society. Published by Elsevier Ltd. All rights reserved.
for stage 4 [11].

While having such a detrimental impact on patient outcomes and healthcare costs, pressure ulcers are essentially avoidable when adequate preventive measures are taken. Nurses being close to the patient 24/7, have a key role to play in the prevention of pressure ulcers. However, numerous studies in Turkey and abroad have pointed out that nurses often lack sufficient knowledge in the prevention of pressure ulcers [12–19]. Furthermore, studies also show that educating nurses regarding preventive care can be effective in reducing the incidence of pressure ulcers, therefore it is essential to establish baseline nurses’ knowledge regarding the prevention of this clinical problem [20]. Periodical assessments can also be used as part of continuous professional development. For this to succeed valid and reliable instruments, with proven valid psychometric properties, are needed in order to assess the adequacy of nurses’ knowledge on pressure ulcers [14,21]. Still, the number of instruments in the literature assessing knowledge on pressure ulcer prevention is limited.

The Pressure Ulcer Prevention Knowledge Assessment Instrument (PUPKAI) is a questionnaire, developed to meet this need. PUPKAI has been developed by Beeckman et al. [18] to evaluate nursing staff knowledge on pressure ulcers prevention. It consists of multiple choice questions, based on the latest evidence on this topic and it is one of the few instruments of which psychometric properties were fully studied. As yet, there is no similar instrument currently available in the Turkish language.

The aim of this study was to translate, validate and explore the psychometric properties of PUPKAI into Turkish (PUPKAI-T).

2. Material and methods

2.1. Design

A methodological study design was adopted. The study consisted of linguistic validity of the instrument and psychometric properties of the translated version of the instrument.

2.2. Instrument

PUPKAI is composed of multiple choice questions based on sound evidence addressing the various aspects of preventing and recognizing pressure ulcers. It has been designed for use either as self-report or interview format. The instrument contains 26 items and 6 themes. These are: Aetiology and Development (6 Items), Classification and Monitoring (5 Items), Risk Assessment (2 Items), Nutrition (1 item), Preventive interventions to reduce the amount of pressure/shear (7 items) and Preventive measures to reduce the duration of pressure/shear (5 items). Three response choices are given for each item where only one of the choices is the correct answer. The total number of correct answers from each theme and the entire instrument indicates the individual levels of knowledge. Maximum score that can be achieved is 26 and acceptable score for proficiency is ≥ 16 (i.e.60%) [18]. The Psychometric properties of PUPKAI have been studied.

Beeckman et al. [18] reported that PUPKAI has a good overall internal consistency (Cronbach’s alpha value = 0.77) and test-retest intra-class correlation coefficient = 0.88. It’s content validity index was 0.78–1.0. Yet, significant differences were found when the test was applied to different groups i.e. known-groups validity. The item difficulty indices of the questions ranged from 0.27 to 0.87, and the item discrimination values ranged from 0.29 to 0.65. This original version was used extensively in many studies [12–15].

There is also a Chinese version of PUPKAI [22]. This version has a good overall internal consistency (Cronbach’s alpha value was 0.792), test-retest intra-class correlation coefficient (0.826) and good validity (content validity index was 0.91). The item difficulty indices were between 0.46 and 0.93, and the item discrimination values ranged from 0.28 to 0.55.

2.3. Linguistic validity

The linguistic validity of the instrument was performed using the guidelines as set by Beaton et al. [23]. Standard procedures were followed to verify the accuracy of translation and scope of the Turkish version of the instrument by ten clinical experts, i.e. doctors and nurses. They were asked to assess each item of the instrument by relevance and clarity on a 4-point Content Validity Index (CVI) scale as follows: 4: highly relevant, 3: quite relevant but needs minor changes, 2: somewhat relevant, the wording should be revised, 1: not relevant). The CVI of the instrument was found to be 0.94 [23]. Final revision of the instrument was carried out in the light of the advice from experts and preliminary application was conducted with a group of 20 people participating in the study. Pilot application proved that all items on the instrument were clear, thus no further revisions were required [24]. Linguistic and content validity were verified, followed by further psychometric assessments of the instrument. For linguistic validity the original PUPKAI was translated from English into Turkish via the forward-back translation method. Content analysis showed that all items appeared to be adequate for measuring pressure ulcer prevention knowledge (Appendix A and B).

2.4. Data collection

This study was conducted in a tertiary hospital in Istanbul (Turkey) between April–July 2014. The sample consisted of 150 nurses who worked in medical or surgical wards and volunteered to participate. With a sample size of 150 individuals over a twenty-six-item instrument the recommended ratio of between 5:1 and 10:1 for methodological rigor was met [25]. Data were collected in a single session. Re-testing of the instrument was applied on 46 nurses from the same sample after an interval of two weeks.

2.5. Ethical considerations

Before the commencement of the study, written permission from Beeckman was obtained for adapting the PUPKAI and use of the adapted version in Turkey. Ethical approval was obtained from the Ethical Board of the hospital (approval number: 1491-48-14/1539). The study’s purpose was explained to the nurses as they were invited to participate. Written consent was obtained and anonymity and confidentiality was assured.

2.6. Data analysis

Statistical analysis was performed by use of IBM SPSS for Windows (v.21.0) Software Package. Descriptive statistics and non-parametric statistical tests including Mann Whitney U test and Spearman correlation, intra-class correlation were employed. The item difficulties and discriminating indices were used to evaluate the validity of the multiple-choice test items of the instrument and Kuder-Richardson 20 was used to determine the internal consistency of the instrument.

3. Results

The socio-demographic characteristics of the study sample’s 150 nurses are presented in Table 1.

Following linguistic validity of PUPKAI-T, the instrument was employed to nurses and its psychometric properties were explored
Test-retest reliability of the Scale (n = 46), percentage of correct answers (n = 150) and Internal consistency reliability (Kuder-Richardson) for the Instrument.

<table>
<thead>
<tr>
<th>Themes</th>
<th>No.of items</th>
<th>Percentage of correct answer (%)</th>
<th>Intraclass correlation coefficient (ICC)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Etiology &amp; development</td>
<td>6</td>
<td>56.9</td>
<td>0.48</td>
<td>0.23–0.68</td>
</tr>
<tr>
<td>2: Classification &amp; observation</td>
<td>5</td>
<td>64.9</td>
<td>0.44</td>
<td>0.16–0.65</td>
</tr>
<tr>
<td>3: Risk assessment</td>
<td>2</td>
<td>57.0</td>
<td>0.37</td>
<td>0.10–0.62</td>
</tr>
<tr>
<td>4: Nutrition</td>
<td>1</td>
<td>87.3</td>
<td>0.80</td>
<td>0.65–0.89</td>
</tr>
<tr>
<td>5: Preventive measures to reduce the amount of pressure/shear</td>
<td>7</td>
<td>52.6</td>
<td>0.44</td>
<td>0.18–0.65</td>
</tr>
<tr>
<td>6: Preventive measures to reduce the duration of pressure/shear</td>
<td>5</td>
<td>59.9</td>
<td>0.60</td>
<td>0.40–0.75</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>60.5</td>
<td>0.54</td>
<td>0.40–0.70</td>
</tr>
</tbody>
</table>

KR-20 = 0.803.
education and clinical experience\[27\]. However, the results on this nursing schools in Italy (n = 742), knowledge about pressure ulcers increase awareness, improve knowledge and quality of care [20,29–32]. In our study, it was noted that 75.3% of nurses (n = 113) had previous training on pressure ulcers. Yet, in none of the themes was a significant difference found between the scores of those who received training and those who did not. This finding indicates the need to improve the in-service training and to establish training sessions on a regular basis, which our subjects had not received.

Our study was subject to certain methodological limitations; therefore the results may need to be interpreted cautiously. The study was conducted in a single center and nurses with expertise training on wound care could not be included as this specialty is new in our country. Therefore a comparison of correct answers between competent and non-competent groups could not be performed. Another point which should be considered is that information on the prevention of pressure ulcers may change over time. Therefore, this instrument should be revised when evidence suggests that new practices would be beneficial.

The instrument can be applied in nursing education, research and practice to evaluate knowledge about pressure ulcer prevention. Since this is a fundamental subject in the basic nursing curriculum, the instrument can be used to assess knowledge in nurses from different levels of education. The instrument can also be used in various in-service programs as a pre-post-test to evaluate efficacy of training. Low-score themes can also be used to identify the educational needs of nurses. Test results can also be used for developing new methods in order to improve the quality of care in prevention of pressure ulcers. Since the knowledge instrument on prevention of pressure ulcers may change over time, the instrument should be updated according to recent research evidence.

5. Conclusions

Based on its psychometric properties, the Turkish version of the Pressure Ulcer Prevention Knowledge Assessment Instrument is a suitable instrument for measuring nurses’ knowledge regarding pressure ulcer prevention. The need for a valid and reliable instrument is evident, not only for assessing the educational needs of nurses and establishing training sessions accordingly but also for assessing efficacy of educational activities on pressure ulcer prevention. Nevertheless, further research in this area needs to be conducted on a larger scale.

Conflict of interest statement

The authors declare there is no conflict of interest.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Contributions

The authors have confirmed that all authors meet the ICMJE criteria for authorship credit as follows: (1) substantial contributions to conception and design of, or acquisition of data or analysis and interpretation of data; (2) drafting the article or revising it critically for important intellectual content; and (3) final approval of the version to be published.

Acknowledgements

We would like to thank Ozlem Koksal (statistician) for her valuable help in statistical analysis.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Question number</th>
<th>Item difficulty (p)</th>
<th>D-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Etiology &amp; development</td>
<td>1</td>
<td>0.81</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.65</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.66</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.60</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.55</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.70</td>
<td>0.30</td>
</tr>
<tr>
<td>2: Classification &amp; observation</td>
<td>1</td>
<td>0.86</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.88</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.67</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.72</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.31</td>
<td>0.32</td>
</tr>
<tr>
<td>3: Risk assessment</td>
<td>1</td>
<td>0.54</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.58</td>
<td>0.78</td>
</tr>
<tr>
<td>4: Nutrition</td>
<td>1</td>
<td>0.80</td>
<td>0.22</td>
</tr>
<tr>
<td>5: Preventive measures to reduce the amount of pressure/shear</td>
<td>1</td>
<td>0.34</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.57</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.68</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.54</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.38</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.70</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>0.49</td>
<td>0.44</td>
</tr>
<tr>
<td>6: Preventive measures to reduce the duration of pressure/shear</td>
<td>1</td>
<td>0.21</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.74</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.38</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.76</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.88</td>
<td>0.24</td>
</tr>
</tbody>
</table>
Appendices

Appendix A
Final instrument

Theme 1: Aetiology and development

1. Which statement is correct?
   a. Malnutrition causes pressure ulcers.
   b. A lack of oxygen causes pressure ulcers.
   c. Moisture causes pressure ulcers.

2. Extremely thin patients are more at risk of developing a pressure ulcer than obese patients
   a. Correct: The contact area involved is small and thus the amount of pressure is higher.
   b. Incorrect. The pressure is less extensive because the body weight of those patients is lower than the body weight of obese patients.
   c. Incorrect. The risk of a vascular disorder is higher for obese patients. This increases the risk of developing a pressure ulcer.

3. What happens when a patient, sitting in bed in a semi-upright (60°) position, slides down?
   a. Pressure increases when the skin sticks to the surface.
   b. Friction increases when the skin sticks to the surface.
   c. Shearing increases when the skin sticks to the surface.

4. Which statement is correct?
   a. Soap can dehydrate skin and thus the risk of pressure ulcers is increased.
   b. Moisture from urine, feces, or wound drainage causes pressure ulcers.
   c. Shear is the force which occurs when the body slides and the skin sticks to the surface.

5. Which statement is correct?
   a. Recent weight loss which has brought a patient below his/her ideal weight increases the risk of pressure ulcers.
   b. Very obese patients using medication decreases the peripheral blood circulation are not at risk of developing pressure ulcers.
   c. Poor nutrition and age have no impact on tissue tolerance when the patient has a normal weight.

6. There is NO relationship between pressure ulcer risk and:
   a. Age
   b. Dehydration
   c. Hypertension

Theme 2: Classification and observation

1. Which statement is correct?
   a. A pressure ulcer extending down to the fascia is a grade 3 pressure ulcer.
   b. A pressure ulcer extending through the underlying fascia is a grade 3 pressure ulcer.
   c. A grade 3 pressure ulcer is always preceded by a grade 2 pressure ulcer.

2. Which statement is correct?
   a. A blister on a patient’s heel is always a pressure ulcer of grade 2.
   b. All grades (1, 2, 3, and 4) of pressure ulcers involve loss of skin layers.
   c. When necrosis occurs, it is a grade 3 or a grade 4 pressure ulcer.

3. Which statement is correct?
   a. Friction or shear may occur when moving a patient in bed.
   b. A superficial lesion, preceded by non-blanchable erythema is probably a friction lesion.
   c. A kissing ulcer (copy lesion) is caused by pressure and shear.

4. In a sitting position, pressure ulcers are most likely to develop on:
   a. Pelvic area, elbow and heel.
   b. Knee, ankle and hip.
   c. Hip, shoulder and heel.

5. Which statement is correct?
   a. All patients at risk of pressure ulcers should have a systematic skin inspection once a week.
   b. The skin of patients seated in a chair who can’t move themselves should be inspected every two to three hours.
   c. The heels of patients who lie on a pressure redistributing surface should be observed minimum a day.

Theme 3: Risk assessment

1. Which statement is correct?
   a. Risk assessment tools identify all high risk patients in need of prevention.
   b. The use of risk assessment scales reduces the cost of prevention.
   c. A risk assessment scale may not accurately predict risk of developing pressure ulcer and should be combined with clinical judgement.

2. Which statement is correct?
   a. The risk of pressure ulcer development should be assessed daily in all nursing home patients.
   b. Absorbing pads should be placed under the patient to minimize the risk of pressure ulcer development.
   c. A patient with a history of pressure ulcers runs a higher risk of developing new pressure ulcers.

Theme 4: Nutrition

1. Which statement is correct?
   a. Malnutrition causes pressure ulcers.
   b. The use of nutritional supplements can replace expensive preventive measures.
   c. Optimizing nutrition can improve the patients’ general physical condition which may contribute to a reduction of the risk of pressure ulcers.

Theme 5: Preventive measures to reduce the amount of pressure/shear

1. The sitting position with the lowest contact pressure between the body and the seat is:
   a. An upright sitting position, with both feet resting on a footrest.
   b. An upright sitting position, with both feet resting on the floor.
   c. A backwards sitting position, with both legs resting on a footrest.

2. Which repositioning scheme reduces pressure ulcer risk the most?
   a. Supine position- side 90° lateral position- supine position- 90° lateral position- supine position- ...
   b. Supine position- side 30° lateral position- side 30° lateral position- supine position- ...

(continued on next page)
### Appendix A (continued)

<table>
<thead>
<tr>
<th>Theme 1: Aetiology and development</th>
</tr>
</thead>
<tbody>
<tr>
<td>c Supine position- side 30° lateral position- sitting position- 30° lateral position- supine position- ...</td>
</tr>
<tr>
<td>3. Which statement is correct?</td>
</tr>
</tbody>
</table>
| a Patients who are able to change position should be taught to shift their weight minimum every 60 min while sitting in a chair.  
| b In a side lying position, the patient should be at a 90° angle with the bed. |
| c Shearing forces affect a patient’s sacrum maximally when the head of the bed is positioned at 30°. |
| 4. If a patient is sliding down in a chair, the magnitude of pressure at the seat can be reduced the most by: |
| a A thick air cushion. |
| b A donut shaped foam cushion. |
| c A gel cushion |
| 5. For a patient at risk of developing a pressure ulcer, a visco-elastic foam mattress includes: |
| a A thick air cushion. |
| b An alternating pressure air mattress. |
| c Local treatment of the risk areas with zinc oxide paste. |
| 6. A disadvantage of a water mattress is: |
| a Elevation of the heels is not necessary. |
| b Elevation of the heels is important. |
| c Has to be combined with repositioning every 4 h. |
| 7. When a patient is lying on a pressure reducing foam mattress ... |
| a A pressure redistributing foam mattress. |
| b The areas at risk are massaged. |
| c Patients are mobilized. |
| 8. When a patient is lying on an alternating pressure air mattress, the prevention of heel pressure ulcers includes: |
| a A pressure redistributing foam mattress. |
| b An alternating pressure air mattress. |
| c Elevation of the heels is important. |
| 9. If a bedridden patient cannot be repositioned, the most appropriate pressure ulcer prevention is: |
| a A pressure redistributing foam mattress. |
| b An alternating pressure air mattress. |
| c Supine position- side 30° angle with the bed. |

* Correct Answers.

### Appendix B

Turkish Version of the Instrument (Basınç Ülseri Onlemede Bilgi Değerlendirme Ölçüğü)

#### Thema 1: Etiyoloji ve Gelişme

1. **Aşağıdaki ifadelerden hangisi doğrudur?**
   - Malnutrisyon basınç ülserlerine neden olur.
   - Oksijen yetersizliği basınç ülserlerine neden olur.
   - Nem basısı, basınç ülserlerine neden olur.

2. **Çok zayıf hastalar obez hastalara göre basınç ülseri gelişimi açısından daha fazla risk altındadır.**
   - Doğru: Temas alan kilosunun normal olduğu durumlarda daha fazla risk altındadır.
   - Yanlış: Bu kisilerin ağırlıkları obez hastaları için daha önemlidir.
   - Yanlış: Hastaların ağırlığı, hastaların riskini artırmaktadır.

3. **Yatakta yorgan oturum pozisyonu (60°) oturan hasta kaydışı zaman neler olur?**
   - Değişme, yüz yerine tutunduğu zaman basınç artar.
   - Değişme, yüz yerine tutunduğu zaman sürünme artar.
   - Değişme, yüz yerine tutunduğu zaman yurtılma artar.

4. **Aşağıdaki ifadelerden hangisi doğrudur?**
   - Sabun cildi dehidrate edebilir ve boylece basınç ülseri riskini artırır.
   - İdrar, feçes ve ya da drenaj çıkan milletin normal olduğu durumlarda doku toleransı üzerinde etkili değildir.
   - Idrar, feçes ve ya da drenaj çıkan milletin normal olduğu durumlarda doku toleransı üzerinde etkili değildir.

5. **Aşağıdaki ifadelerden hangisi doğrudur?**
   - Yakın zamanda hastanın ideal kilosunun altında dişişen kilo kaybı basınç ülseri riskini artırır.
   - Periferik kan dolaşımının azaltılan ilac kullanılarak aşınan obez hastaların, basınç ülseri açısından risk altında değildir.
   - Yeterliz beslenme ve yaş, hastanın kilosunun normal olduğu durumlarında doku toleransı üzerinde etkili değildir.

6. **Basınç ülseri riski ve ... ara arasında ilişkili yoktur.**
   - Dehidratasyon

---

*Z. Tulek et al. / Journal of Tissue Viability 25 (2016) 201–208*
Appendix B (continued)

Tema 1: Etiyoloji ve Gelişme

c Hipertansiyon"d

Tema 2: Sınıflama ve Gözlem

1. Aşağıdaki ifadelerden hangisi doğrudur? a Fasyaya kadar inen bir basınç ülseri, 3. derece basınç ülseridir.6 b Fasyayı da aşan basınç ülseri, 3. derece basınç ülseridir.
c Üçüncü derece basınç ülserinden önce her zaman 2. derece basınç ülseri olur.

2. Aşağıdaki ifadelerden hangisi doğrudur? a Hastanın topuğundaki bükür her zaman 2. derece basınç ülseridir.
b Hangi evre olursa olsun (1,2,3,4) basınç ülserlerinde cilt tabakasında kayıp görülür.
c Nekroz oluşturduğunda basınç ülseri 3. veya 4. derecedir.7

3. Aşağıdaki ifadelerden hangisi doğru olmaz? a Hasta yatarken içinde hareket etmezken zaman yırtma ve sürünme oluşabilir.b b Yüzeyel bir lezyon,.onesinde basmakla solunayan bir eritem varsada muhtemelen sürünme lezyonudur.
c Kissing ülser (birbiriyile temas eden ülser odakları) basınç ve yırtma ile oluşur.

4. Oturuma pozisyonunda basınç ülserlerinin gelişebileceği alanlar ... a Pelvik alan, dışsek ve topuk6 b Diz, ayak bileği ve kaşıc c Kağıt, omuz ve topuk

5. Aşağıdaki ifadelerden hangisi doğrudur? a Basınç ülseri riski olan tüm hastalarda hafif bir sistemik cilt değerendirilmesi yapılmalıdır.
b Kendi başına hareket edeneyen, sandalyede oturman hastanın cildi 2-3 saatte bir gözlenmelidir.
c Basınç eşit dağılmayan bir yeşilde yatan hastaların topuğundan en az 1 defa gözlenmelidir.6

Tema 3: Risk Değerlendirmesi

1. Aşağıdaki ifadelerden hangisi doğrudur? a Risk değerendirme araçları onem alınması gereken yüksek riskli hastaların belirlenmesini sağlar.
b Risk değerendirme ölçümlerinin kullanının önleyici girişimlerin önleyici ingresslerini önleyen artr.
c Basınç ülseri riskini doğru olarak tahmin etmek için risk değerendirme ölçümler yeterli olmayabilir, mutlaka klinik durum da göz önüne alınmalıdır.6

2. Aşağıdaki ifadelerden hangisi doğrudur? a Bakım ev hastalarının tümünde basınç ülseri gelişme riski günlük olarak değerlendirilmelidir.
b Basınç ülseri gelişiminin en azı indirmek için hastanın alta emici pedler yerleştirilmesi.
c Basınç ülseri riskinin bir hastada yeni basınç ülseri gelişme riski yüksektir.6

Tema 4: Nutrisyon/Beslenme

1. Aşağıdaki ifadelerden hangisi doğru olmaz? a Malnutrisiyon basınç ülserlerine neden olur.
b Pahali önleyici girişimler yerine nutrisyonel destek gereklenir.
c Dengeş beslenme, hastanın genel fiziksel durumundu oluşturur, sandalyeye oturman hastanın cildi her 2–3 saatte bir gözlenmelidir.6

c Başınç eşit dağılmayan bir yeşilde yatan hastaların topuğundan en az 1 defa gözlenmelidir.6

5. Basınç/makaslama miktarmı azaltan önleyici girişimler

1. Vücut ile oturulan yerarasında az temas basınç oluşturan oturma pozisyonu; a Dik oturma pozisyonu, her iki ayak eleşevasyonda b Dik oturma pozisyonu, her iki ayak yere basıyor c Arkaya doğru oturma pozisyonu, her iki bakak eleşevasyonda6

2. Hangi pozisyon değiştirme şeması basınç ülseri riskini en çok azaltır? a Sür üstü pozisyon – 90’ 90’ 90’dan pozisyon – 90’dan pozisyon ...
b Sür üstü pozisyon – 30’ 30’ 90’ 90’dan pozisyon – 30’ 30’ 90’ 90’dan pozisyon ...

3. Aşağıdaki ifadelerden hangisi doğrudur? a Pozisyonunu değişirebilen hastalarla, sandalyeye oturunun minimum her 60 dakikada bir artırılmasına değiştirmeleri önermelidir.6 b Yan yatış pozisyonunda, hasta yataklı ile 90’ açı olmalıdır.
c Yatak bası pozisyonu 30’ olduğunda, yürütmeye kuvveti hastanın sakrümumunun maksimum derecede etkiler.

4. Eğer hasta sandalyeden kayyorsa, oturulan alanlardaki basınç bölgüsü ... a Ince bir havalı minder6 b Simit çekili kopuklu minder c Jieli minder

5. Basınç ülseri gelişme riski olan hastada, bir viskoelastik kopuk şilte ... a Basınç ülserini azaltmada etkili bir beraberinde pozisyon vermeye gerek yoktur. b Her iki saatte bir pozisyon değiştirme ile bırakılabilir. c Her dort saatte bir pozisyon değiştirme ile bırakılabilir.6

6. Sulu şiltenin bir dezavantajı ... a Kaçakları yoldanın arıtmasıdır. b Topuklarında basınınım arıtmasıdır. c Spondon küçük vücut hareketlerinin alınmasıdır.6

7. Hasta basınç azaltıcı kopuk şilte üzerine yatırımda; a Topuk eleşevasyonu gerekli değildir. b Topuk eleşevasyonu önemlidir.6 c Şilte üzerindeki çıkmıklık günde en az iki defa kontrol edilmelidir.

Tema 6: Basınıçértirmenden önüne açılanmek için önleyici girişimler

1. Pozisyon değiştirme kesin önleyici bir yöntemdir. Çünkü ... a Basınç ve yoldanın alınması açıklığa azaltabilir. b Basınç ve yoldanın alınması ve süresi azaltacaktır. c Basınç ve yoldanın alınması azaltacaktır.6

2. Eğer ... daha az hastada basınç ülseri gelişebilir a Ek gıda sağlanması b Riskli alanlara masaj yapılmasına c Hastalar mobilize edilirse6
References


