



Knowledge and educational needs of renal nurses in the oral hygiene of patients undergoing dialysis

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Dental and oral cavity diseases are common problem among patients with chronic kidney disease (CKD).

CKD leads to the fast progress of caries and periodontal diseases.

Oral health is also deteriorated by inadequate hygiene.

The consequence is dysfunction of the chewing apparatus and improper nutrition, which impairs the quality of life and leads to malnutrition.

In addition, The World Health Organization points to the correlation between obesity and periodontal disease.

Oral status is also important in the transplant qualification process.



Patients who require dialysis are predisposed to dental problem such as:

- Peridontal disease,
- Gingivitis,
- Tooth abnormalities,
- Premature tooth loss,
- Xerostomia.

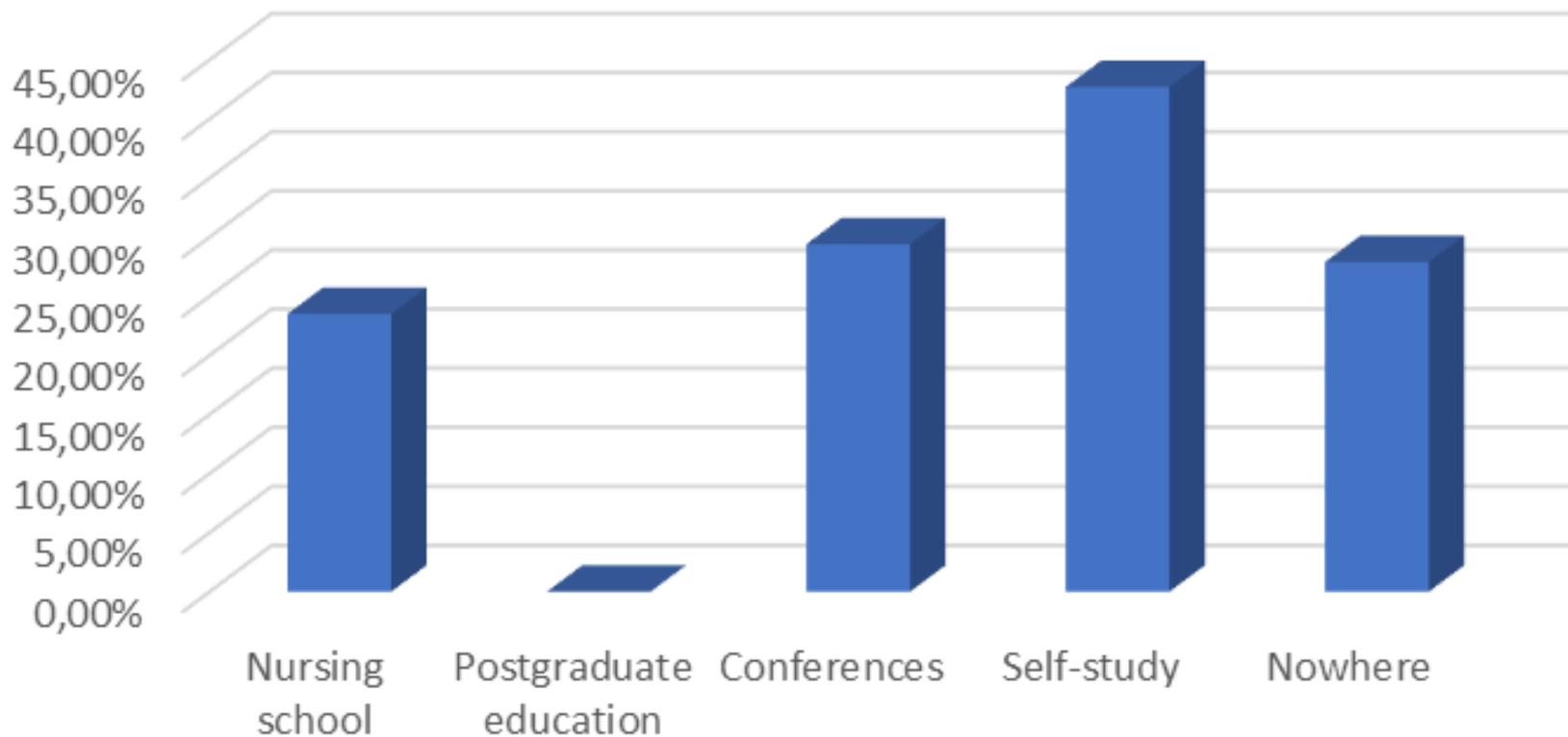
The aim of the study was to assess the level of knowledge and educational needs of renal nurses in the field of oral hygiene of patients undergoing dialysis.



- The study was conducted among 68 renal nurses from all over Poland.
- Participation was voluntary and anonymous.
- The author's 28-items questionnaire has been used to collect the data.

- All of the respondents were women, and the mean time of work as renal nurse was 19.5 ± 9 years.
- 54.4% of nurses also had a specialization in nephrology.
- Almost the whole group took care of hemodialysis patients (95.6%). 20.6% of nurses were engaged in peritoneal dialysis patients care.
- 42.7% of the respondents gained knowledge about oral hygiene through self-education, only 23.5% learnt it at the nursing school.

Where did you get knowledge about oral hygiene in dialysis patients?



Importance of hemodialysis patients' oral health:

- Very important – 94.1%
- Fairly Important – 5.9%

| Do you... | Always | Often | Rarely | Never |
|--|--------|-------|--------------|--------------|
| ...ask patients about regular visits to the dentist? | 2.9% | 25.0% | 51.5% | 20.6% |
| ...ask patients about their problems in the oral cavity? | 0.0% | 20.6% | 58.8% | 20.6% |
| ...check the oral conditions of your patients? | 0.0% | 1.5% | 33.8% | 64.7% |

| Training in oral hygiene in dialysis patients | Yes | No | I don't know |
|---|--------------|--------------|--------------|
| Is needed | 100% | 0.0% | 0.0% |
| Willingness to participate | 83.8% | 0.0% | 16.2% |
| Is described in the existing handbook or guidelines | 0.0% | 86.8% | 13.2% |

Results – Knowledge

| | | |
|--|----------------------------------|--------------|
| Frequency of dental office visits | Once every three months | 20.6% |
| | Once every six months | 60.3% |
| | Once a year | 19.1% |
| | Once every 2 years | 0.0% |
| | In case of pain | 0.0% |
| Frequency of toothbrush replacement | Monthly | 51.5% |
| | Once every three months | 39.7% |
| | Once every six months | 0.0% |
| | After each infection | 7.4% |
| | When the toothbrush is destroyed | 4.4% |

Results – Knowledge

| | | |
|---|--------------------|--------------|
| Minimal brushing frequency | Once a day | 0.0% |
| | Twice a day | 55.9% |
| | Three times a day | 42.6% |
| | After each meal | 1.5% |
| Duration of brushing | 0.5 minute | 0.0% |
| | 1 minut | 7.4% |
| | 2 minutes | 29.3% |
| | 3 minutes | 55.9% |
| | 4 minutes | 7.4% |
| Volume of toothpaste for one brush | 0.5 cm | 32.4% |
| | 1 cm | 27.9% |
| | 1.5 cm | 7.4% |
| | 2 cm | 17.6% |
| | It doesn't matter | 14,7% |

Results – Knowledge

- Almost everybody knows that 32 is the maximum number of teeth (94.1%), but only 29.4% of respondents know that the components of plaque are proteins and bacteria.
- A large group of nurses (79.4%) correctly indicate indicators of a healthy oral cavity, like pinky, moist and clean mouth without difficulties with eating or swallowing food.
- 41.2% women correctly indicates the causes of dry mouth (medications, fluid limitations and gum disease).

Results – Knowledge

| | True | False | I don't know |
|---|--------------|--------------|--------------|
| Caries is more frequent in hemodialyzed patients | 72.0% | 11.8% | 16.2% |
| Poor oral condition leads to cardiovascular complications | 86.7% | 1.5% | 11.8% |
| Dryness in the mouth prevents teeth demineralization | 10.3% | 64.7% | 25% |
| Patients after transplantation are more likely to have problems in the mouth | 98.5% | 0.0% | 1.5% |
| Undernutrition is associated with poor oral hygiene | 29.4% | 58.8% | 11.8% |

- 94.1% of nurses indicated the correct number of teeth. The majority of surveyed (55.9%) had knowledge of brushing frequency, 29.4% knew the duration of brushing.
- Few of the respondents (11.8%) were aware that caries occurs less frequently in haemodialysis patients than in the general population.
- All participants pointed out that the education about oral hygiene of dialysis patients is needed.

- The knowledge of renal nurses on oral hygiene of dialysis patients is general and insufficient, which results from the lack of education. The respondents indicated the need to conduct training and expressed their willingness to participate in them.
- The implementation of the educational program for this group would increase the level of knowledge, allow to develop a model of action and create educational programs for patients, and consequently improve the health and quality of life of patients undergoing dialysis.



Thank You!

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