

Background

Renal stones is one of the most common disorders of the urinary tract globally, it affects about 12% of the world population at some stage in their lifetime^[1].

Patients with a history of renal stones have a 60% greater risk of developing CKD (chronic kidney disease) and a 40% increased risk of progressing to end-stage renal disease^[2].

In the Gulf region, the incidence of kidney stones is higher than the global average due to factors such as socio-economic status, environmental factors, and dietary habits. High consumption of oxalate-containing foods and low intake of calcium-containing foods are known risk factors for renal stone formation in this population. This highlights the importance of measuring levels of awareness, prevention, early detection and management.

Methods

Design:
Quantitative Cross-sectional

Sample:
A non-probability convenience sampling was used. The minimum calculated sample size required was 385. Participants were adults (20-49 years old) from Abu-Dhabi, Dubai, Sharjah and Ajman.

Instrument:
A self-administered questionnaire consisting of 15 questions was used. Questions were categorized into sections, including demographics (3 questions), history of disease (2 questions), knowledge of kidney stones (8 questions), and practices (2 questions).

Analysis:
The data was analyzed using SPSS 25, and statistical tests such as Chi-Square, T-test, and Kruskal-Wallis Test were used to identify correlations and estimate the strength of associations. Bar and Pie charts were used to illustrate the knowledge of risk factors, diagnosis methods, and complications, while line graphs were used to analyze mean knowledge scores. A p-value of 0.05 was considered statistically significant.

Discussion

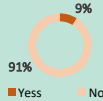
- Previous studies have found that individuals with a history of kidney stones tend to possess greater knowledge regarding the condition^[3]. However, our study did not find a similar association, which may be due in part to a lack of education among those who have experienced kidney stones.
- Consistent with previous research, we found that individuals with a family history of kidney stones demonstrated greater knowledge than those without (P-value < 0.05)
- A community cohort study and found that many individuals have low baseline knowledge of the relationship between certain foods and beverages and the risk of developing renal stones^[4]. Our study supports this finding, as we also observed a significant lack of knowledge in this area.
- Interestingly, we did not observe a significant correlation between educational level and knowledge about kidney stones. It is possible that exposure to information, rather than formal education, may be a more important factor in increasing knowledge.
- Our results highlight the decreasing role of physicians in educating patients about kidney stones, as only 31.5% of responders received information from physicians. Instead, many individuals are turning to non-evidence-based sources such as the internet and social media (60%), which underscores the need for reliable, evidence-based information to be more readily available and accessible.

References

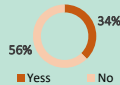
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Results

History of kidney stones



Family History of kidney stones



The mean total knowledge score was found to be 56.4%, indicating a lack of knowledge among participants regarding dietary factors, risk factors, and appropriate daily water intake.

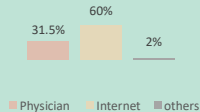
Many respondents inaccurately identified vegetables, spinach, nuts, and eggs as dietary choices that can prevent the formation of kidney stones.

Interestingly, there was no significant difference in knowledge scores between participants who had previously experienced kidney stones and those who had not.

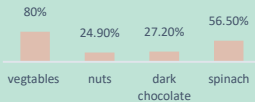
The analysis did not reveal any correlation between knowledge and the educational level of the participants.

On a positive note, most responders demonstrated a good level of knowledge regarding the signs, symptoms, and diagnostic methods of kidney stones.

Source of knowledge



False perception of dietary risk factors



Conclusion

The study found that while the UAE's population has some knowledge about kidney stones, there are significant knowledge gaps regarding consequential risk factors associated with kidney stones.

This highlights the urgent need for health campaigns and education initiatives to improve knowledge and awareness about kidney stone prevention, early detection, and management in the population. Further research is needed to identify effective strategies for delivering education and to evaluate the impact of such initiatives on patient outcomes.