Empowerment Program on Osteoporotic patients at General Out-patient Clinic

Chan M.Y., Lai S.N.S., Lam P.Y., Pang S.K., So K.W., To M.M.A., Hung S.Y., Cheung Y.H.K. & Wong M.S.M.

Hong Kong East Cluster, Department of Family Medicine & Primary Health Care

Introduction

- Osteoporosis is a chronic condition characterized by diminished bone density and quality, significantly heightening the risk of fractures.
- The burden of osteoporosis is substantial, not only from an economic perspective, but also in terms of individual impact, including diminished quality of life, altered self-image, and increased dependency.
- The Osteoporosis Society of Hong Kong (2013), lifestyle measures are constituted the basic non-pharmacological management for patients with osteoporosis.
- Complementary educational strategies are critical in improving patient awareness and compliance.

Objective



- An empowerment program was designed to enhance the knowledge, attitudes, and behaviours of osteoporotic patients, through a nurse-led clinic in Sai Wan Ho General Out-patient Clinic (GOPC).
- The target patients were aged 60 or above with diagnosis of osteoporosis, emphasizing information dissemination, health coaching, and lifestyle modifications.

Methodology

- The empowerment program is underpinned by the Knowledge, Attitude, and Practice (KAP) model, tailored to the cultural context of Hong Kong.
- Patient education: standard information including diet, sunlight exposure, exercise, fall prevention and medication





Scoring system of the Risk Estimate of Inadequate Health Literacy (REIHL)

Part	Score	Conditions
Part 1 : Age	0	Age < 65 years
	4	Age 65 - 74 years
	4	Age 74 - 84 years
	7	Age > 84 years
Part 2 : Education level	0	Senior secondary education or above
	2	Junior secondary education
	5	Primary education
	11	No formal education
Part 3 : Number of chronic illnesses* * Chronic illnesses refer to osteoporosis, hypertension, stroke, diabetes or heart diseases.	0	Have none of theses illnesses
	1	Have one of these illnesses
	2	Have two of these illnesses
	3	Have three of these illnesses
	4	Have four of these illnesses
	5	Have five of these illnesses

The total score of REIHL is the sum of all three parts. A REIHL score ≥ 11 is considered to show inadequate health literacy. The REIHL score ranges from 0 to 23; the higher the score, the greater the inadequacy.

For health education

For health coaching

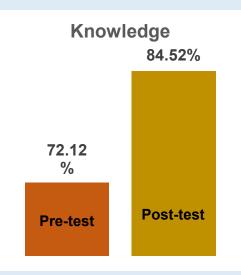
- Patient coaching: health literacy assessment using the Risk Estimate of Inadequate Health Literacy (REIHL) tool, with individualized coaching to patients with adequate health literacy scores
- Pre-test and Post-test for knowledge, attitude, and practice (KAP) questionnaire after the empowerment program were performed.
- Finally, patient satisfaction survey was carried out.

Result and Outcome

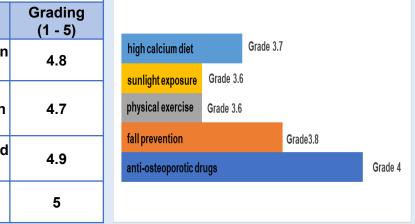
- Project Period: 1 June 2024 15 August 2024
- 39 patients completing the KAP questionnaire, participation rate 82.98%

Female : Male 36 : 3 REIHL Adequate Health Literacy 33 out of 39 patients

Practice



Attitude		
Items	Grading (1 - 5)	
You hope nurses provide more information for improving osteoporosis	4.8	
You will modify your lifestyle to improve osteoporosis after being given information from the nurses	4.7	
You hope nurses develop an individualized care plan for you to improve osteoporosis	4.9	
You will pay more attention to your lifestyle for improving osteoporosis	5	



- Knowledge: a significant improvement from 18 to 21 out of 25 post-education.
- Attitude: the high scores indicated that patients are highly aware of the importance of managing osteoporosis and they are motivated and self-confidence to take the lifestyle modification.
- Practice: the high scores reflected patient had better compliance of practicing lifestyle medication.
- The satisfactory survey: Grade 4.49 out of 5 (5=very satisfied)
- · Limitations: a small sample and the absence of a validated local assessment tool
- The initiative effectively promoted positive lifestyle changes and improved overall patient satisfaction, reflecting its potential for broader application in osteoporosis care frameworks.