The interview has been conducted on a 73-year-old female named, "Sonia" (not real name, for confidential purpose) after got consent. 'Healthy Ageing Quiz' tool was used to assess her health and well-being status. She has received 33 scores out of 46. The following key findings such as physical activity, weight, and diet are critically analyzed and impact of these findings on her functional ability and overall health are well described further.

As per Sonia's perspective, ageing is an irreversible process and comes with diseases and disabilities. She has been suffering from diabetes and hypertension for the last 30 years and is not managing well enough with diet and medications. Her body fatigued after 10 minutes' walk and was unable to continue physical activity. However, in my point of view, if a person is exercising every day and eating a well-balanced diet, both together can improve functional ability and increase independence in older people.

Moreno-Agostino et al. (2020) suggest in their study that physical activity always impacts positively in elderly populations. It helps to improve their health, prevent diseases and a decline of their health. If older people are not doing any type of physical exercise, then their health declines rapidly as compared to people who are doing physical activity. This is especially important to include some sort of exercise and physical activity in daily life to promote health and well-being in elderly people so that they can stay active and take part effectively in society.

Faienza et al. (2020) explain that physical activity is one of the effective strategies and non-pharmacological treatments for diseases related to bone, cardiovascular, lung, etc. It also affects bone health and remodeling. If there is disproportion between bone development and bone reabsorption, it leads to osteoporosis. However, with the advancement of physical activity, there are more chances to increase the possibilities of keeping bone characteristics and slow down the beginning of osteoporosis.

According to her, she has been trying to lose weight a few times, but she found it hard due to busy lifestyles. She doesn't have sufficient energy to prepare her low-calorie meals as her body is not working as it was before when she was young. However, as per my point of view, if she wants functional independence and better postural and balance control, she needs to lose weight as overweight, and obesity impacts all parts of a human body and increases the risk of a fall in an elderly population.

Maktouf et al. (2020) mention that obese patients are at higher risk of fall, and they have poor postural and balance control than the people with normal BMI. If obese people can start to do physical activity, their weight and waist circumference can manage well and increase their independence participation in daily living activities. Physical activity helps to improve muscular, proprioceptive, visual and sensory systems of older people.

Lartey et al. (2020) describe that female with high schooling and those who belong to a rich family have found difficult to transition to normal weight from overweight and obese groups. They also include that overweight or obesity relates to age, and it impacts on physical and cognitive health of individuals, especially older people. The higher percentage of overweight /obese cause an economic burden on government. In this case, it's necessary to implement weight reduction strategies to prevent diseases and increase the well-being of older people. Overweight elderly people are more likely to suffer from acute or chronic illness, decline

standards of life and increase the chance of mortality and morbidity. The prevalence of overweight/obese individuals' numbers is increasing day by day.

Colleluori and Villareal (2021) explain in their study that individuals who lose their weight by decrease intake of calories, their adipose tissue and muscle mass get depleted and dysfunction. However, they mentioned that if physical activity and diet are included in lifestyles, it can abrupt muscle deprivation and start to build up strong muscles. Besides that, it prevents disability caused by obesity in older people and improves skeletal muscle dysfunction.

Morgan, Smeuninx & Breen (2020) suggest that obese people have a more extensive muscle mass in quadriceps muscles than lean elderly people. They also prove the strong relationship between muscle fat and outside environmental impact on elderly which can be unfavorable to health in their later life.

Sonia's intake of vegetables, fruits, yoghurt etc. are extremely low and she does not drink enough water. She eats 2 regular meals and skips her third meal most days. Her diet is not nutritious enough. She can't tolerate adequate amounts of food as her body is not tolerating well enough due to getting older.

Wickramasinghe et al. (2020) suggest that if an individual's diet is not well-balanced, it can deteriorate an individual' physiological health and welfare due to overburden of energy overconsumption and dietary deficiency. It also affects medical expenses, potency and standard of life. It's necessary for elderly to understand that a well-balanced nutritious diet is important to support functional and inherent capabilities.

Docherty et al. (2021) suggest that dehydration is one of the main causes of acute kidney injury. Dehydration deteriorates the body mechanism's response to stimuli, tissue hypoperfusion and puts elderly at considerable risk of heart-related diseases, hypovolemic shock, gastrointestinal as well as cerebrovascular disorders.

Grønning et al. (2018) explain diet, physical activity, lifestyle, psychosocial status and the ability to take part in the activity of daily living influence the health and well-being of elderly. There is an inter-relation between diet style and depression in older people. It is important to expand and explore good dietary habits of the elderly population to enhance healthy ageing. There are other few risk factors such as smoking, social support, gender etc. which impact on the psychological distress of the elderly.

The interviewer directs the interviewee to see GP for further advice about physical activity and weight reduction strategies. Sonia can receive help from dietician to develop healthy meal plan so that her weight and diet can manage well and in effective manner.

References:

Colleluori, G & Villareal, DT 2021, 'Aging, obesity, sarcopenia and the effect of diet and exercise intervention', *Experimental Gerontology*, vol. 155, p. 111561.

Docherty, NG, Delles, C, D'Haese, P, Layton, AT, Martínez-Salgado, C, Vervaet, BA & López-Hernández, FJ 2021, 'Haemodynamic frailty – A risk factor for acute kidney injury in the elderly', *Ageing Research Reviews*, vol. 70, p. 101408.

Faienza, MF, Lassandro, G, Chiarito, M, Valente, F, Ciaccia, L & Giordano, P 2020, 'How Physical Activity across the Lifespan Can Reduce the Impact of Bone Ageing: A Literature Review', *International Journal of Environmental Research and Public Health*, vol. 17, no. 6, p. 1862.

Grønning, K, Espnes, GA, Nguyen, C, Rodrigues, AMF, Gregorio, MJ, Sousa, R, Canhão, H & André, B 2018, 'Psychological distress in elderly people is associated with diet, wellbeing, health status, social support and physical functioning- a HUNT3 study', *BMC Geriatrics*, vol. 18, no. 1.

Lartey, ST, Si, L, Otahal, P, de Graaff, B, Boateng, GO, Biritwum, RB, Minicuci, N, Kowal, P, Magnussen, CG & Palmer, AJ 2020, 'Annual transition probabilities of overweight and obesity in older adults: Evidence from World Health Organization Study on global AGEing and adult health', *Social Science & Medicine*, vol. 247, p. 112821, viewed 5 September 2020, https://www.sciencedirect.com/science/article/abs/pii/S027795362030040X.

Maktouf, W, Durand, S, Beaune, B & Boyas, S 2020, 'Influence of Obesity and Impact of a Physical Activity Program on Postural Control and Functional and Physical Capacities in Institutionalized Older Adults: A Pilot Study', *Journal of Physical Activity and Health*, vol. 17, no. 2, pp. 169–176.

Moreno-Agostino, D, Daskalopoulou, C, Wu, Y-T, Koukounari, A, Haro, JM, Tyrovolas, S, Panagiotakos, DB, Prince, M & Prina, AM 2020, 'The impact of physical activity on healthy

ageing trajectories: evidence from eight cohort studies', *International Journal of Behavioral Nutrition and Physical Activity*, vol. 17, no. 1.

Morgan, PT, Smeuninx, B & Breen, L 2020, 'Exploring the Impact of Obesity on Skeletal Muscle Function in Older Age', *Frontiers in Nutrition*, vol. 7.

Wickramasinghe, K, Mathers, JC, Wopereis, S, Marsman, DS & Griffiths, JC 2020, 'From lifespan to healthspan: the role of nutrition in healthy ageing', *Journal of Nutritional Science*, vol. 9, viewed 20 June 2021, https://www.cambridge.org/core/journals/journal-of-nutritional-science/article/from-lifespan-to-healthspan-the-role-of-nutrition-in-healthy-ageing/1247A635D5F799F5AE5B855FEC94DC11.