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# Emotional Regulation Mechanism of Smartphone use on Positive Aging: From the Perspective of Elasticity

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**Background:** The booming global digital economy has not only changed the mode of economic development, but also deeply affected the lifestyle of the elderly. In particular, the use of smart phones has increased the channels for the elderly to obtain information, improved the degree of social participation of the elderly, and objectively promoted the practice of active aging. At present, nearly 100 countries in the world have entered an aging society, with a global elderly population of nearly 1 billion, accounting for 13% of the total global population. Almost all the elderly in the world's major economic countries use smartphones. In this context, this paper focuses on the psychological mechanism of using smart phones to promote active aging (or active aging). At the same time, it also includes that the elderly can quickly recover from the negative emotions caused by serious stress / adversity, and accompany individuals to eliminate the negative effects of negative emotions and promote long-term coping resources by generating positive emotions.

**Subjects and Methods:** The elderly have always been regarded as a social burden and need to be taken care of. In fact, when facing adversity, the elderly, like infants and young children, will stimulate the self-protection mechanism to deal with adversity through psychological elasticity (through self-efficacy or external support), so as to restore a good psychological, physiological and social state. From the perspective of elasticity proposed by Norman Garnezy & Michael (1986), this paper introduces the main models of elasticity, constructs the application model of elasticity in the field of active aging, and applies it to the impact mechanism of smartphone use on the mental health of the elderly. This paper also uses a self-made emotional self-assessment form. The self-assessment form is used for the dynamic evaluation of the time process of emotional arousal. According to the emotional balance scoring strategy, the subjects were asked to evaluate their emotions at that time in the form of "negative positive" continuum. There is only one item, which is prepared because the dynamic assessment needs to report the emotion and degree of the moment, and there can not be too many items. The emotion is scored from - 5 to 5 (from the most negative end to the most positive end). From - 1 to - 5, the emotion is becoming more and more negative, from 1 to 5, the emotion is becoming more and more positive, and 0, the uncertainty. At the specified time point, the subjects were asked to evaluate their emotions at that time. In this study, Cronbach's  $\alpha$  the coefficient is 0.96.

**Results:** The external environment and psychological state faced by the elderly were similar to those of infants, which was in line with the premise of the theory of psychological elasticity. Therefore, it is feasible to use the elasticity theory to study the response of the elderly to the changes of the external environment. The resilience model of the elderly constructed in this paper shows that using smart phones can delay cognitive decline, improve information literacy, enrich the mind, reduce the disease incidence rate, and improve the subjective well-being and actual social participation of the elderly through mechanisms such as online cognitive improvement effect, online social support effect and online social capital creation effect. Comparison of emotional baseline between high and low resilience groups. The positive emotion, negative emotion and emotional balance (the difference between positive emotion and negative emotion) of the two groups were compared by univariate analysis of variance (ANOVA). It can be seen that compared with the low resilience group, the high resilience group had a higher baseline average score of positive emotion,  $f(1,65) = 10.15$ ,  $P = 0.002$ ,  $\eta^2 p = 0.135$ ; The average score of negative emotion at baseline was low,  $f(1,65) = 30.80$ ,  $P < 0.001$ ,  $\eta^2 p = 0.322$ ; High baseline emotional balance,  $f(1,65) = 34.25$ ,  $P < 0.001$ ,  $\eta^2 p = 0.345$ . The inter group differences of all indexes reached very significant statistical significance and above.

**Conclusions:** The psychoelastic model based on the characteristics of infants and young children can be used to analyze the stress response of the elderly. Through smart phones, the elderly can effectively obtain information, improve their psychological state, promote social participation, accumulate human capital and realize active aging. Therefore, in the context of active aging, the elderly should not be regarded as a burden of society, but as creators and service providers of social values. Promoting the use of the Internet and smart devices, including smart phones, among the elderly will help meet the challenges of aging and achieve positive aging. Strengthen the social relief of the anxiety of the elderly, carry out targeted education for relevant personnel, correctly alleviate positive emotions, and guide them to create social value according to their own situation.

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