

Relationship of the use of Digital Devices to Young Children's Happiness and Resilience in the Time of COVID-19: Philippines Country Report
[CRNA Collaborative Research for Exploring Factors Nurturing "Happy and Resilient" Children among Asian Countries]

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In the Philippines, the Department of Education (DepEd) oversees the development of children from ages 5 to 8 years through the basic education program that starts at the kindergarten level at the entry age of five years (Republic Act No. 10410). In this study, "children" refers to 5- and 7-year-olds. Face-to-face classes of children in the early grades, including the kindergarten classes of five-year-old children, and the grades one to two classes of seven-year-old children were disrupted when Philippine schools closed in March 2020 due to the COVID19 pandemic. In response to the challenges of this new normal, the DepEd, through Department Order 12 s. 2020, adopted a Basic Education Learning Continuity Plan (BE-LCP) that included streamlining the K-12 curriculum into the Most Essential Learning Competencies (MELCs). Distance learning became the key delivery mode.

Distance learning imposed by the COVID19 pandemic situation in the country has the following implications: the home is the only venue for the children's learning and development, parents or guardians, especially to five- and seven-year-old children, are the primary facilitators of learning, and physical interaction and play with peers are no longer available to young children. It is important to check on how our children are coping with this new normal in terms of resilience and happiness, and what environmental factors are associated with resilience and happiness. Literature shows that to mitigate the effects of social isolation and anxiety during online distance learning, technology has contributed to staying connected. In this study, we explore how the use of digital devices can affect resilience and happiness among 5 and 7-year-old children. Implications for the role of family, school, and the government will be discussed.

Methodology

We sent questionnaires via Google Forms from August to September, 2021, to the mothers of 5-year old children and of 7-year old children and asked them to answer the questions. Participants gathered were from a middle-income salary group living in suburban cities in Luzon, Visayas, and the Mindanao islands of the Philippines. Demographic data were also collected such as children's age, sex, and birth order. Confounding factors such as household income, parents' education, were also asked.

A total of 420 responses were received, with 218 coming from mothers of 5-year old children and 202 from mothers of 7-year old children.

Questions in the questionnaire included in this study were about the following: Q1 Situation of COVID19; Q2 Basic data about the subject child; Q3 Current facility/school attendance; Q6 Subject child's resilience (CYRM-R questionnaire); Q7 Subject child's happiness (QOL) (KINDL questionnaire); Q9 Subject child's actual usage of digital media; Q10 Parenting involvement when a subject child uses digital media; Q11 Changes in mother's discomfort in children's ICT usage from pre-to post-COVID19; Q12 Child's way of spending time daily: Play, digital media usage, etc.; Q14 Changes in time length from pre- to post-COVID19: Play, digital media usage, etc.; and Q21 Basic information on household, childrearing support.

The Child and Youth Resilience Measure (CYRM-R) version used here is a 17-item resilience measure that could be completed by a person most knowledgeable (PMK) about the child. In this study, for consistency, mothers were chosen to be the PMK, thus mothers are the respondents.

Resilience here is defined as the capacity of individuals to navigate through psychological, social, cultural, and physical resources to sustain their well-being, and the capacity to negotiate for these resources individually or collectively in culturally meaningful ways, in the midst of exposure to significant adversity (Ungar & Liebenberg, 2011).

In addition to an overall resilience score, scores for personal and for the caregiver or relational resilience can also be obtained. Personal resilience has intrapersonal and interpersonal items 1, 2, 3, 7, 9, 10, 12, 13, 14, 16. In this 5-point scale version, the maximum score is 50. For caregiver/relational resilience, items 4, 5, 6, 8, 11, 15, 17, the maximum score is 35.

The KINDL questionnaire is a generic instrument used for assessing health-related quality of life in children and adolescents. It is composed of 24 questions with 6 subscales: Physical well-being, Emotional well-being, Self-esteem, Family, Friends, and Everyday functioning (School or Nursery School/Kindergarten).

Data analysis consisted of descriptive statistics for demographic data, correlations among variables of happiness (KINDL), resilience (CYRM-R), and ICT instruments were done.

Results and Discussion

The total number of subject children in this study is 420, with 223 females and 196 males. The questionnaire respondents are all mothers. The number of subject children per age group is shown in figure 1.

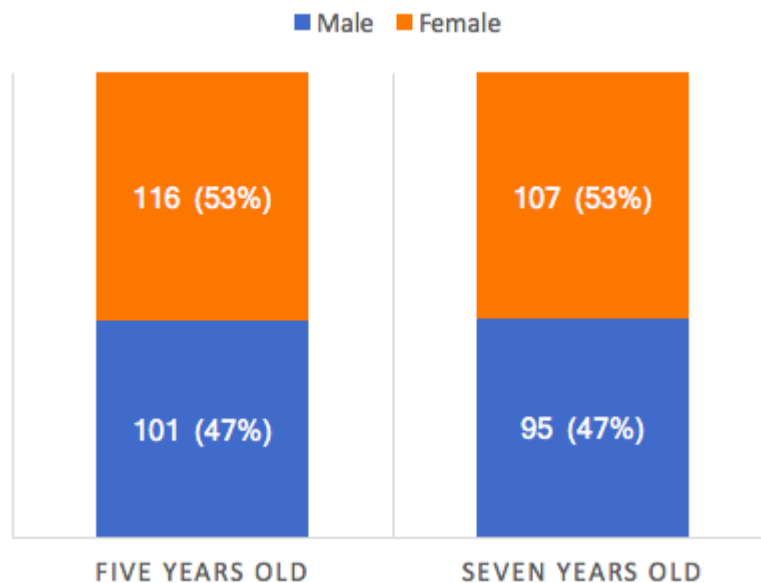


Figure 1. Profile of the children

The children mostly come from a family with two or three children in the family. Most of the 5-year-old children sleep for 9-10 hours, while most seven-year-old kids sleep 8-9 hours.

At the time of the survey, most of the mothers reported that their area is under lockdown quarantine situation, most of them are vaccinated, are mostly fairly satisfied with the pandemic measures of the government, and are fairly concerned about the spread of the infection. The mother

respondents and their partners are mostly graduates of a 4-year university course. They come from the lower-middle-income group.

The trend of responses on Resilience of 5- and 7-years-olds

Figure 2 shows children’s resilience overall. As a whole, there exists no sufficient statistical proof to conclude that the means between 5 and 7 years old are different for CYRM-R, not even in terms of its two subscales.

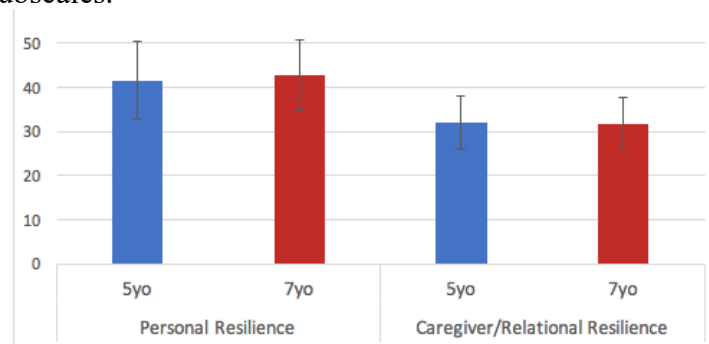


Figure 2. Children’s Resilience (CYRM-R)

The majority of the 5 and 7-year-old children in this study demonstrate personal resilience in terms of the following: being fun to be with or to play with; feeling they fit in at their school; being treated fairly; being given chances to show others that they are growing up, and able to do things by themselves; and having chances to learn things that will be useful when they are older (like cooking, working, and helping others).

In terms of caregiver/relational resilience, the majority of the 5 and 7-year-old children have a parent/caregiver who: knows where they are and what they are doing most of the time knows a lot about them (for example what makes them happy, scared, sad); provide enough food to eat at home when they are hungry; they can talk to about how they feel; cares about them when times are hard like when they are sick or have done something, and make them feel safe. Additionally, they expressed liking the way their family/caregiver(s) celebrates things (like holidays or learning about their culture).

The trend of responses on Happiness of 5- and 7-year-olds

Figure 3 shows children’s happiness overall. As a whole, there exists no sufficient statistical proof to conclude that the means between 5 and 7 years old are different for KINDL. In terms of the subscales in KINDL: results showed that 7 years old respondents have a significantly higher mean than 5 years old respondents in the Physical health scale and Social functioning scale/Friends. This means most 5 and 7-year-olds are happy, with the older children having better physical health and getting along more with friends.

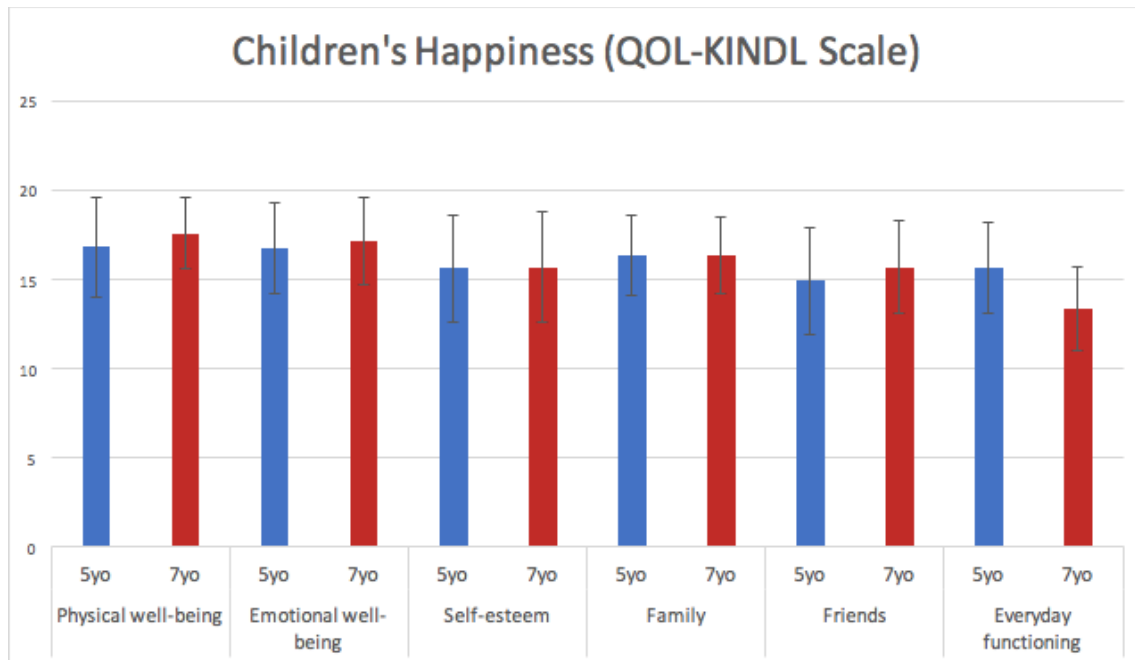


Figure 3. Children’s Happiness (QOL-KINDL Scale)

For physical well-being, the majority of the children expressed they never felt tired or worn out. For emotional well-being, they never felt alone, nor scared. For the family-scale, the children got on well with the parents all the time and felt fine at home all the time. For friends, they never felt different from other children.

Comparing the two groups, for the self-esteem scale, the majority of the 7-year-old children were proud of themselves and had lots of good ideas all the time. On the other hand, for the everyday functioning scale, the 5-year-old children looked forward to nursery/kindergarten all the time, while the 7-year-old children were worried about their future.

How the children use ICT

The children’s actual use of digital media often involves: listening to music; playing games; and doing homework for school. On the other hand, the 7-year-old children also often use digital media to: watch video clips; take photos; enjoy programs for physical exercise; watch programs distributed by the school, and communicate using video chat.

Parenting involvement in the child’s use of digital media very much includes: choosing what the child watches/uses; keeping an eye on the child when he/she is using digital media; talking to the child about the content of what he/she is watching; encouraging the child to decide the time length of use; researching together; and supporting the child so he/she can do difficult activities. Additionally, parents of 7-year-old children not only watch/use digital media together with their child but also allow their child to watch/use digital media alone.

Comparing pre-to during-pandemic, for both age groups, the length of time spent playing indoors increased during the pandemic, and the length of playing outdoors decreased. Consequently, the time spent using digital devices and watching at home increased. Mothers of 7-year-olds feel less awkward with their child’s use of digital media as a tool for entertainment and play, and as a tool for studying.

Correlations Within ICT instruments

Figure 4 shows the correlation between different ICT instruments. (Q12) The summed up value for the Child’s way of spending time daily (Play, home-studying, digital media usage, etc.) has a weak negative correlation to (Q9) the actual use of digital media, also to (Q10) the parenting involvement when using digital media, and to Q14 (the change in the length of time the child plays and uses digital media from pre- to during COVID19 pandemic. Additionally, it has a weak positive correlation to (Q11) the summed up value for changes in mother’s discomfort in children’s ICT usage from different perspectives;

The changes in the mother’s discomfort in her child’s ICT usage (Q11) has a weak positive correlation to (Q14), the summed up value for changes in time length of ICT usage, home study, and play from pre- to during-COVID19. This suggests that involving children in various activities leads to less time spent on digital media which in turn decreases parental involvement and mothers’ discomfort in children’s ICT use.

Similarly, (Q9) the subject child’s actual use of digital media has a strong positive correlation with (Q10) parenting involvement when a subject child uses digital media.

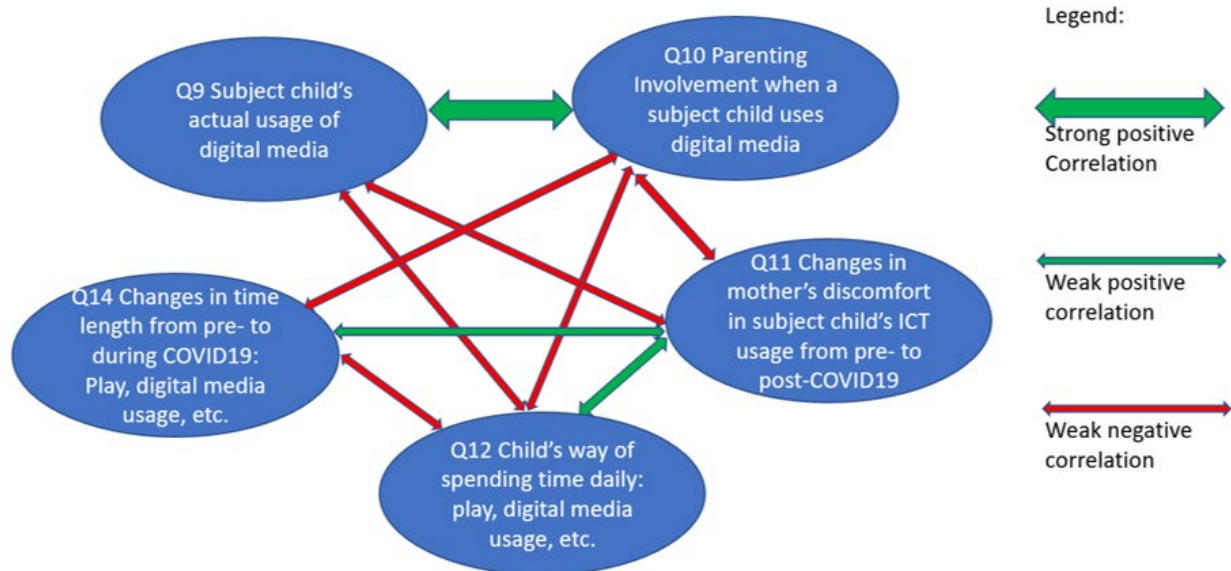


Figure 4. Correlations within ICT instruments

Correlations between CYRM-R (resilience) and KINDL (QOL)

Figure 5 shows the correlation between CYRM-R (resilience) and KINDL (quality of life/happiness). There was a significant positive relationship between resilience and quality of life/happiness, at $p < .01$. This suggests that the higher the level of resilience, the higher the quality of life (happiness).

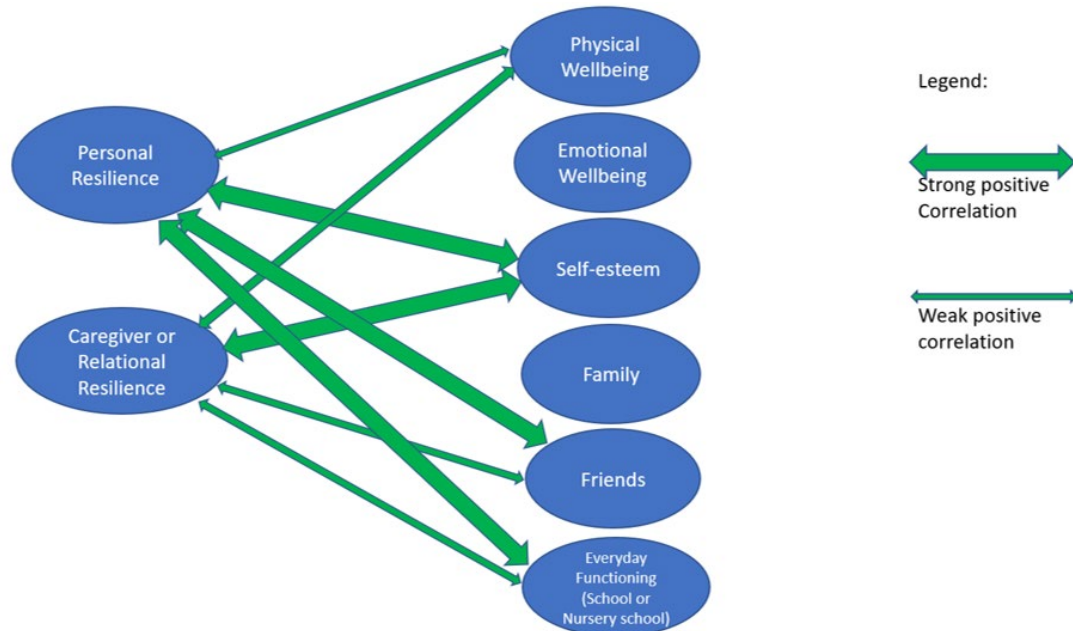


Figure 5. Correlations between CYRM-R and KINDL(QOL)

Among 5- and 7-year-olds combined, Personal Resilience has a strong correlation with self-esteem (Q7.9 to Q7.12), friends (Q7.17 to Q7.19), and everyday functioning (school; Q7.21 and Q7.22). Also, Personal Resilience has a weak correlation with physical wellbeing (Q7.1 to Q7.4). On the other hand, Relational Resilience has a strong correlation with self-esteem, but a weak correlation with physical well-being, friends, and everyday functioning (school).

However, among 7-year-olds alone, there is a weak correlation between Emotional Well-being (Q7.7 and Q7.8) and Personal Resilience.

Correlations between CYRM-R and ICT

Overall among 5- and 7-year-olds combined, all subscales of CYRM-R and ICT are not significantly correlated to one another.

However, for 5-year-olds, there was a significant positive relationship between subscale (Q6) Personal resilience of CYRM-R and (Q12) of ICT instruments, Child’s way of spending time daily: Play, studying, home study, digital media usage, etc., and the correlation is weak. This suggests that how a child spends time daily influences personal resilience. The way children spend time during the day may influence how well they perform in school, adjust behaviors, engage with friends, and attempt to learn new things. Being active and creative, trying new things, engaging in activities that interest them, watching TV and film, and using the internet tend to be supportive factors in coping with the pandemic (The Children’s Society, 2020; Office for National Statistics, 2020), which are in consonance with five main influencers of well-being, as identified by the New Economics Foundation (Aked et al., 2008), namely connecting with others, being active, taking notice, keep learning, and giving.

For 7-year-olds, (Q11) changes in mother’s discomfort in children’s ICT usage has a weak positive correlation to both resilience subscales of CYRM-R. This suggests that the more comfortable the parents are in the use of digital media, the higher the personal and relational resilience of the child. Parents may have become more comfortable in the use of digital media during the pandemic, especially to stay connected with others in the midst of lockdowns and

quarantines. Studies cited by Bohnert and Gracia (2020) have noted that the use of digital media tends to be positively correlated with well-being, especially in terms of being socially connected with others through digital media. During the pandemic lockdowns, staying connected with others, proved to be difficult due to the necessary physical distancing, and the use of social media to virtually get in touch with family and friends became one of the primary means of communication, acting as a supportive factor for children (Bartlett & Vivrette, 2020; Gabbiadini et al., 2020).

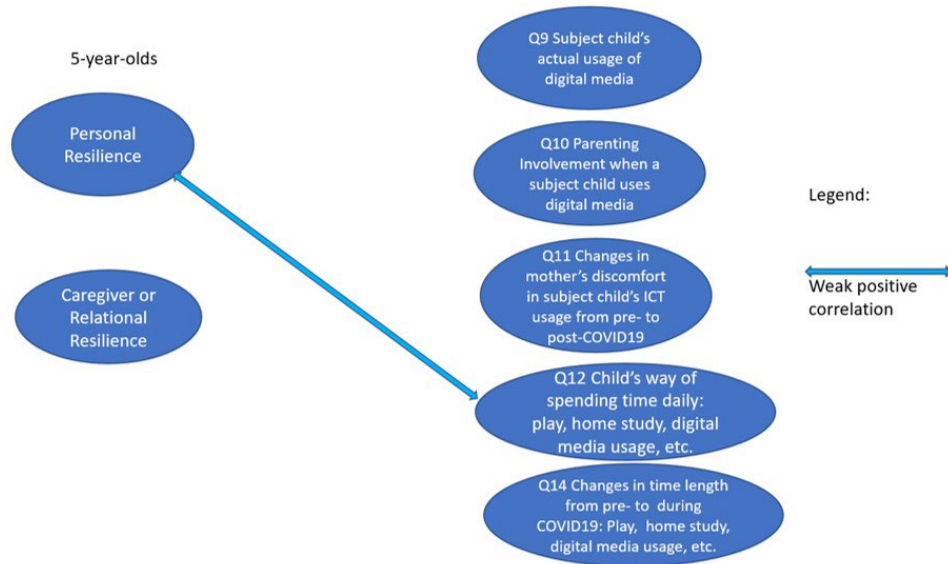


Figure 6-a Correlations between CYRM-R and ICT, 5-year-olds

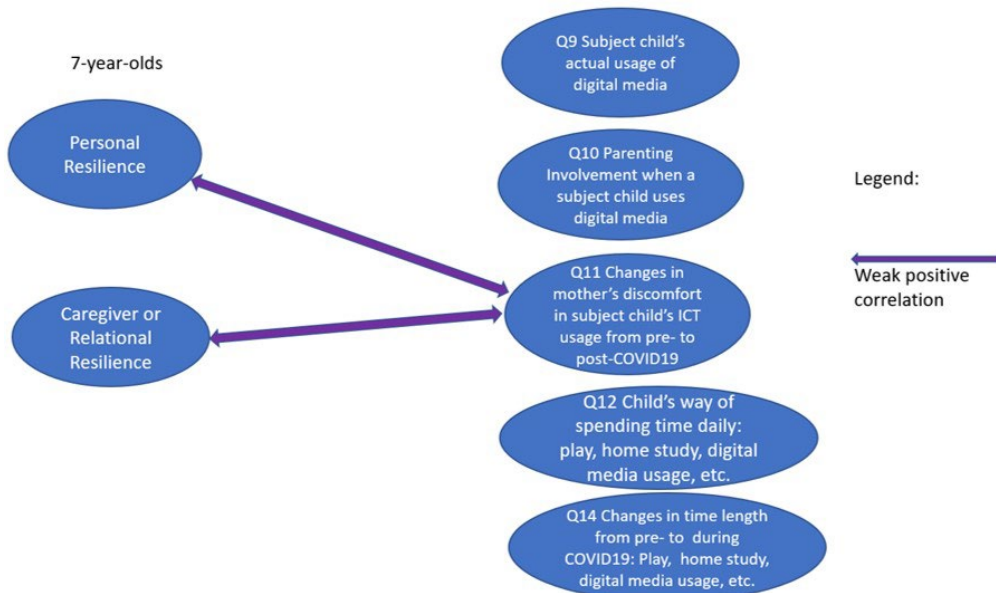


Figure 6-b Correlations between CYRM-R and ICT, 7-year-olds

Correlations between KINDL (quality of life/happiness) and ICT

Figure 7 shows the correlation between KINDL and ICT instruments. Overall, for 5 and 7-year olds combined, only the (Q7s1) Physical well-being subscale of KINDL has a weak positive correlation with (Q9) Subject child’s actual usage of digital media, in the ICT instruments. This may imply that the more a child uses digital media, the more the child feels well and full of energy.

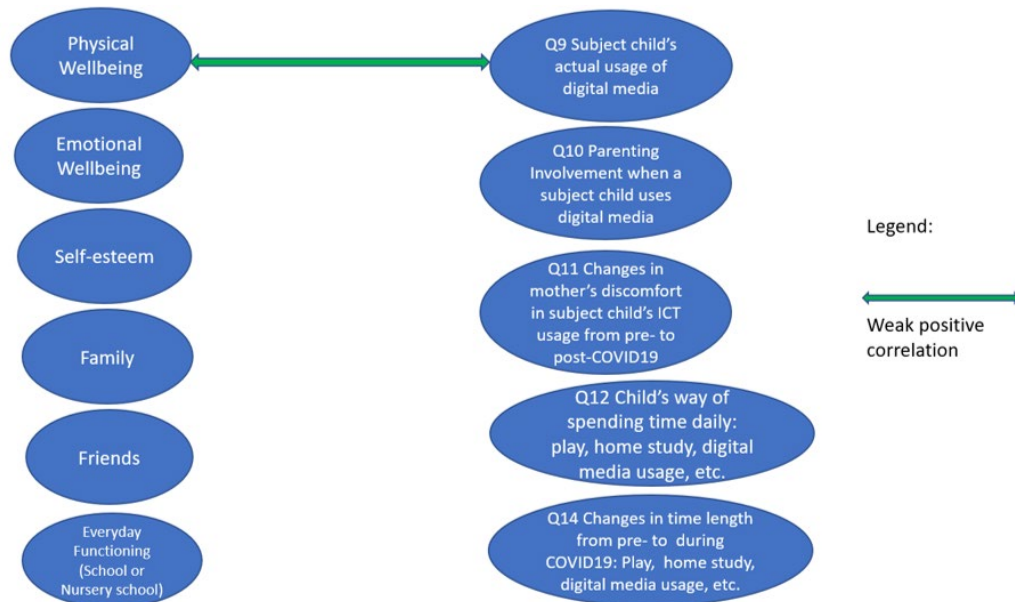


Figure 7. Correlations between KINDL(QOL) and ICT

However, for 5-year-olds, the subscale (Q7s21-24) School functioning of KINDL has a weak positive correlation with (Q10) Parenting involvement when a subject child uses digital media, in the ICT instruments. Since all schools in the Philippines are doing blended learning, doing modules, and online learning, parent involvement in the use of technology for 5-year-olds has also increased. And for 7-year-olds, only the Subscales (Q7s9-12) Self-esteem of KINDL has a weak positive correlation with (Q11) Changes in mother’s discomfort in children’s ICT usage from pre- to post-pandemic. This implies there is a correlation between parents getting more comfortable in their child's use of technology, allowing them to use it for various purposes, and the increase in the self-esteem of the child.

Findings and limitations of this research

Based on the Philippine data, there is no significant difference in the resilience and quality of life (happiness) of 5 and 7-year-old children. Moreover, resilience has a strong positive correlation with the quality of life (happiness). On the other hand, resilience and ICT are not significantly correlated to one another; while only the physical health aspect of quality of life (happiness) has a weak positive correlation with the child’s actual usage of digital media. Finally, the children’s actual use of digital media has a strong positive correlation with parenting involvement when a child uses digital media.

Based on these findings, a conclusion is made that although parents' involvement when a child uses digital media is crucial in the child’s actual use, ultimately, children’s resilience and happiness do not depend on digital media use.

It is recommended that parents' involvement should focus on ensuring the physical health aspect of children's digital media use. Specifically, the length of screen time should be carefully supervised, and provision of various activities to balance digital media use. For schools, the ergonomics of digital use can be considered. For the government, initiatives focused on parental awareness and support in promoting resilience, happiness, and digital media use can be strengthened.

A longitudinal study can be made to follow and examine the changes in resilience, happiness, and digital use of children. Further studies can also look into resilience, happiness, and digital use of children in the post-pandemic period.

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