

Factors Influencing Effects of Korea's Rural Life Improvement Program on Quality of Life of Rural Women*

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한국의 농촌 생활개선사업이 농촌여성의 삶의 질에 미치는 영향요인

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Abstract

Rural life improvement programs (RLIPs) have been implemented with a central goal of improving the quality of rural life and promoting rural welfare and cultural life. However, different factors may influence the effect of rural life improvement programs on rural communities or households. This study aimed to investigate the determinants of perceived effects of RLIPs on quality of life of rural women in South Korea. We used a mixed research design to generate data for this study. We collected survey data from 311 rural women who participated in the RLIPs and also conducted a focus group discussion. We analyzed the quantitative data using descriptive statistics and hierarchical regression to identify the variables that predicted effects of RLIPs on quality of life of rural women. Our study finds that age, type of residence in the community, leadership experience, level of education, community satisfaction and community participation influenced respondents' perceived effects of RLIPs. The results imply that the benefits of a development intervention could not be uniformly reaped by residents of a community.

Key words: quality of life, rural life improvement, rural women, Saemaul Undong, community development

요약

농촌생활개선사업은 농촌생활의 질을 높이고 농촌복지와 문화생활을 증진시키는 것을 중심 목표로 시행되어 왔으나 농촌생활개선사업이 농촌공동체나 가구에 미치는 효과에는 다양한 요인들이 영향을 미칠 수 있다. 본 연구는 한국의 농촌여성들에게 농촌생활개선사업이 미치는 지각된 효과의 결정요인을 알아보고자 하였다. 본 연구의 자료를 생성하기 위하여 혼합연구설계를 사용하였으며, 농촌생활개선사업에 참여한 농촌여성 311명의 설문자료를 수집하고 초점집단토론을 실시하였다. 농촌생활개선사업이 농촌여성에게 미치는 효과를 예측하는 변수를 파악하기 위하여 기술통계와 위계적 회귀분석을 이용하여 정량적 자료를 분석하였다. 분석결과, 응답자의 연령, 지역사회 거주형태, 리더십 경력, 교육수준, 지역사회 만족도와 지역사회 참여가 농촌생활개선사업에 대한 인지된 효과에 영향을 미치는 것으로 나타났다.

주요어: 삶의질, 농촌생활개선, 농촌여성, 새마을운동, 지역사회개발

Key words: quality of life, rural life improvement, rural women, Saemaul Undong, community development

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1. Introduction

Rural life improvement has been an important issue in the development discourse and a key policy concern of governments after the Second World War (Rauch et al., 2016). Different countries have implemented rural life improvement interventions under diverse policy frameworks and with various constituents in order to improve the living conditions of their rural people. The condition of rural poverty was the main driving force that shaped the priority areas in rural policy design (De Janvry et al., 2002). Accordingly, some countries accorded agricultural production increment primacy over transformation of living conditions of their rural people, and vice versa while others dealt concurrently with both issues (De Janvry et al., 2002; Park, 2019).

Rural policy designers usually assume a homogeneous community and focus on the policy designing per se than evaluating its impacts on households, and consequently, rural policy impacts have seldom been assessed (Hwang et al., 2018). Development interventions are also usually implemented with the same assumption that community residents are uniform, have converging needs and get equal benefit from the interventions. Nevertheless, rural communities encompass diverse sets of individuals and their interests mostly diverging (Lucchetti, & Font, 2013). This implies that a development intervention does not yield uniform benefits for all community members, a number of factors playing a role in influencing the benefits individuals and households obtain from the intervention. Socio-economic status of individuals, their community sentiments, or other project related exogenous factors can influence the benefit obtained from a development project and ultimately quality of life (Datta, 2015; El-Kogali et al., 2016; Lucchetti, & Font, 2013).

South Korea's (hereafter Korea) RLIPs were implemented with relevance to each community and emphasized on the prevailing problems of each decade; initially focusing on the technical and survival issues ranging from improving diet to cope with food shortages, cooking stoves in response to fuel shortages, to guidance on improving house heating system

(OECD, 2021; Park, 2019). In the later years, RLIPs included community level comprehensive issues such as improving the social status of rural women, rural traditional village and rural tourism, sustaining the local traditional living culture, creating a pleasant rural living environment for rural residents, and improving overall quality of life (Heo, & Kim, 2016; Rural Development Administration (RDA), 1996). However, following the huge government's investment in the RLIPs, the program encountered criticism mainly drawing questions about its effectiveness in addressing the intended goals, that is improvement of quality of life of rural women (Hwang, & Lee, 2015). Therefore, it is important to conduct an empirical study to identify the determinants of effects of RLIPs on quality of life of rural women.

Previous researches on impacts of Korea's rural life improvement programs (Cho, 2009; Choi et al., 2020; Diallo, 2013; Hwang, & Lee, 2015; Hwang et al., 2018) investigated the effect of a single project on rural farm households. Moreover, these studies used quasi-experiment method, quantitative evaluation tool, and quantitative data whereby they emphasized on the mere economic impacts of the projects they studied. These studies investigated the effect of RLIPs on rural residents in relation to farm income, non-farm income, and creation of employment opportunities and quantified the gains from the projects to explain the results. The studies also did not take into account the different factors that can influence rural residents' capacity to benefit from government initiatives and improve their quality of life. In this regard, Walker et al. (2010) argue that most of the agricultural and rural development policies impact evaluations have dealt with assessing cost-effectiveness of the policies without considering inter household discrepancies. Thus, it requires investigating how the targeted rural residents perceive the effects of the government initiatives in relation to improving their quality of life and what factors influenced the effect of the initiatives on their lives.

Our study, therefore, aimed to investigate factors influencing the effects of RLIPs implemented in rural areas across the last few decades as perceived by the rural women who were the targets of the programs by using a mixed research method.

It tried to answer the research questions: which characteristics of respondents influence the perceived effect of rural life improvement programs on quality of life of rural women? Do these factors influence the perceived effect of RLIPs on rural women's quality of life positively or negatively? We used both quantitative and qualitative data for this study and analyzed the data using a hierarchical regression technique to sort out the related factors. This study contributes to knowledge pertaining to impacts of development interventions by identifying the factors that can foster or militate the capacity of rural residents to benefit from interventions intended to improve their quality of life. It also plays its part in indicating rural policy makers that socio-economic and community sentiment related factors of the targets of a development intervention can influence the benefits intended for them. The remainder of the paper is organized as: section 2 gives a glimpse of Korea's rural life improvement programs; section 3 appraises previous studies; section 4 discusses methods of data collection, measurement and analysis; section 5 presents the results; section 6 discusses the main findings and concludes.

2. Korea's Rural Life Improvement Programs (RLIPs)

Korea has risen from the ruins as a result of the destructive war in the 1950s and witnessed a rapid economic growth since 1960s. Korea became industrialized in a remarkably short period, which led to rapid agricultural transformation and declining of its share in the GDP (Park et al., 2008). However, the country's economic growth since 1960s that attributed to the manufacturing sector located in the cities, was escorted by a rampant rural poverty with over 60 percent of the rural residents wallowing in absolute poverty (Park, 2019). There was also widening income gap and living conditions between the urban and rural households. The difference in the living conditions was so wide that almost 80 percent of the rural residents lived under rice straw thatched roofs with little infrastructure (Park, 1998).

The combined effect of these resulted in swift changes in rural communities notably, mass out flow particularly of the youth from rural areas to the urban looking for better living conditions leading to depopulation and aging of rural population (Choi et al., 2020; OECD, 2021). The Korean government launched subsequent packages of RLIPs in response to the widening income gap and worsening rural life with an aim to rejuvenate rural areas and nurture competent and sustainable rural communities (Hwang et al., 2018). The country's persistent and dynamic RLIPs implemented since the 1960s and rapidly attuned with the changing domestic and overseas situations enabled its rural area's transformation (Gamo et al., 2022; OECD, 2021).

Korea's RLIPs commenced in 1958 when the government endorsed a rural community development project designed by the United Nations and the United States for the least developed countries as a pilot project in 12 villages, which later grew to 818 villages in 1961 (Park, 2008; Park, 2013). This program was proposed at a US-Korea combined economic board meeting in 1955 to rehabilitate rural areas devastated by the Korean war. In 1957, the Combined Economic Board set up a joint task force and a committee to investigate the program's adaptability and design the program, which the Korean government approved in January 1958. The program was indicated as a social project set out to improve people's living conditions in the rural communities (Park, 2019). Various rural life improvement projects were implemented initially in the selected 12 pilot villages under the supervision of the central committee established by the government for this purpose (Park, 2013). The launching of the program was followed by establishing life improvement clubs and rural women's voluntary learning organizations in order to facilitate implementation of the rural life improvement projects. The voluntary organizations were the key role players in demonstrating simple cloth making, preparation of nutritionally balanced diet, kitchen improvement, etc (Rural Development Administration (RDA), 1990).

However, implementation of RLIPs intensified since early 1970s with the introduction of Saemaul Undong, a "new village" movement that radically transformed Korea's rural

life. Owing to increasing government investment in the rural sector and implementation of several RLIPs, the decade 1970s brought an extraordinary change in the rural Korea (Park, 2019). During the Saemaul Undong, there was also an increasing voluntary participation of the community members in the designing of community specific projects in line with the community demand and free election of community Saemaul leaders in spite of government's initiation of Saemaul Undong (Asian Development Bank (ADB), 2012).

Korea's rural society witnessed an extraordinary transformation in the 1970s as a result of the consecutive RLIPs. The dramatic transformation included while only 20% of the rural households had had electricity in 1960s, over 90% of them had access to electricity by 1977, the entire thatched roofs (over 80% in 1960s) were ousted by modern houses, rice production highly increased to ensure self-sufficiency, and rural household's income was raised remarkably (Douglas, 2013; Park, 1998). Farm households' income exceeded that of the urban households' in the mid-1970s and was closely comparable to urban households' income up until the early 1990s. However, the gap widened again with urban households earning more amount due to the plethora of opportunities in the urban centers (OECD, 2021; Park, 2019). Again, over 80% of rural households relied on common water wells and usage of flush toilet was afforded only by 0.1% of rural houses in 1960. Over 85% of rural households used flush toilets, while 96.9% had a modern kitchen and 96.2% had a bathing facility in 2010; and the coverage for all the three presently being almost 100 percent indicating that the programs have transformed Korea's rural communities (OECD, 2021; Song et al., 2015).

In early 1980s, annual non-farm income of a rural household reached 35% of the total. This decade also marked a shift in the role of rural women with more women engaging in agriculture due to out migration of men for employment in the urban centers. The RLIPs of this era were also designed to respond to the changing role of women (RDA, 1990). In the 1990s, rural policies were targeted at curbing the adverse effects of liberalization of agricultural market that resulted

from the Uruguay Round of negotiations (1986-1994) where as in the millennia, rural policy priority was reducing regional disparities and equitable distribution of socio-economic benefits into rural communities. Korea's recent rural policy priority has been commercialization of rural resources where rural communities are encouraged to commercialization of socio-cultural resources and branding and value adding of local farm products (OECD, 2021; Park, 2019).

3. Previous Studies

Quality of life has increasingly become a focus of research among the academia and a priority issue among the policy makers in the recent decades. It is a fluid and multifaceted concept having different definitions in different academic fields of study and making its scientific measurement difficult (Fallowfield, 2009; Schalock, 2004; Theofilou, 2013). Quality of life broadly entails how individuals the 'goodness' of multiple aspects of their life including emotional response to life incidences, disposition, sense of life fulfilment, and satisfaction with work and personal relationships (Theofilou, 2013). In the literature, quality of life has been interchangeably used with well-being although the terms are not exactly the same. The available literature identified multitudes of individual level as well as community level measures as factors influencing quality of life. These factor include demographic characteristics of respondents such as age, sex, marital status, level of education and income (Alexandre et al., 2009; Bramston et al., 2002; Ganesh et al., 2014), community engagement (Galloway, 2006), sense of community (Bramston et al., 2002), and social support (Bramston et al., 2002; Galloway, 2006).

Rural life improvement is an incessant process of minute but successful changes in the day-to-day life of the rural people with the idea of modernization of their life (Cruz, 2003). It is thus, implemented with a central goal of improving the quality of rural life and promoting rural welfare and cultural life (Taguchi, n.d). Rural life improvement movement dates back to the early 20thC in the United States of America which commenced with economic support by governments and later

coupled with rural sanitation, medical services, kitchen improvement, and public libraries. It was introduced into Asia after World War II first into Japan following the U.S. occupation in 1948, the Philippines in 1952, and Taiwan in 1953 (Cruz, 2003). After World War II, rural life improvement movement encompassed wide ranging issues including democratization of the rural areas in many countries besides boosting agricultural productivity and residential area improvement (Park, 1998).

Rural development efforts that emphasized in agricultural productivity enhancement in many countries beginning from the "Green Revolution" in the 1960s, markedly boosted cereals' yield per unit area, mainly wheat and rice. Several integrated rural development projects were also implemented with the main goal of improving living conditions of the whole community as opposed to the "Green Revolution" that benefitted mainly the well-off farmers. Rural life improvement programs focus mainly on social development and human resource development approaches, that is human aspect of development which holds central place in recent development scenes (Cruz, 2003; Evenson, & Gollin, 2003).

The Korean RLIPs initiated with its political leaders of the time being influenced by the Modernization thought with the implementation process also framed to this end. This was clearly indicated in the policy documents as improving rural life and modernizing rural areas that was implemented in the form of rural modernization movement (Saemaul Undong) particularly since the 1970s (Amoah, & Millis, 2019; Park, 1998). Modernization of the nation was the priority agenda since the late years of this decade with emphasis first on programs for improving the rural residents' immediate residential environment followed by programs of economic infrastructure and programs for household income boosting (Choe, 2003; Hwang et al., 2018; Park, 2019). Rural development policies in the 1960s were implemented with the objective of social development, that is improving the standard of living in rural areas and boosting rural income by modernizing rural communities (OECD, 2021).

In the later years, Korea's rural policy was also influenced by the endogenous growth theory and RLIPs were modeled

after this theory particularly since 2000s. The endogenous growth theory states that the technological change that stimulates economic growth is created within a society by different profit seeking agents (Choi et al., 2020; Rawat, 2014). Thus, the focus of rural policy has been changed from agricultural development to territorial development and, thus, endogenous rural life improvement strategy accentuated on community driven, bottom-up, and participatory process initiated by public policy (Margarian, 2011; OECD, 2006). The key elements of development efforts in the recent discourse: community participation, human centered development, gender and development, human-centered development, and enhancement of social capital were the essential components of the RLIPs right from their inception (Park et al., 2008).

Identifying the precise impacts of agricultural and rural policies on the intended targets and the manner each household benefited from the policies has been a complex and challenging task (Hwang et al., 2018). Different disciplines applied various techniques to measure the impacts of development projects, leading to lack of consensus on a single methodology to apply. Most of the local development project impact related studies targeted the collective socio-economic and environmental sustainability issues of the projects than investigating household level factors that influence impacts of development practices (Agol et al., 2014; Datta, 2015; Hwang et al., 2018; Yabi, & Afari-Sefa, 2009). A number of factors can influence the effect of development projects on communities or households. These factors can range from the project formulation process to implementation (Lucchetti, & Font, 2013), beneficiaries' socio-economic capability (El-Kogali et al., 2016; Yabi, & Afari-Sefa, 2009), attachment to their community (Milton et al., 2012), community participation (Gamo et al., 2021), satisfaction with previous projects (Bagherian et al., 2009), and others.

The available literature on impacts of development projects dealt mainly with the broad economic, social, and environmental benefits obtained from the projects. Factors related to respondents' characteristics that can enable or limit their ability to benefit from development projects were not given attention. Thus, our study attempts to bridge this

knowledge gap and investigates factors that influenced the effect of RLIPs implemented by the Korean government.

4. Method

4.1. Data collection

We conducted this study in rural Korea from where we selected respondents across all the nine regions of the country. We used a mixed research design to generate data for the study and better understand the effects of RLIPs on rural women. Accordingly, we conducted survey on 311 rural women who participated in the RLIPs and also conducted a focus group discussion. The target population for our study were all women farmers who participated in the RLIPs between 1970s to 2000s. These RLIPs included: rural diet and nutrition program, clothing and farm work environment program, rural life and residential program, home management and job creation for women program, cultural facilities and elderly life program, and rural resources development program. We employed a multistage sampling technique to select our respondents. In the first step we employed a snowball sampling technique to identify our respondents because the sampling frame was no easy to organize. Thus, we identified 921 rural women who participated in the RLIPs since the 1970 using this technique. We then, used a simple random sampling technique to select 311 respondents.

We developed a comprehensive survey questionnaire to collect the data and employed a cross-sectional survey. The survey questionnaire was initially developed in English language and translated into Korean language by a professional translator. The questionnaire was again translated from Korean back into English language by another professional translator to check whether it was accurately translated. Thus, we used the Korean version questionnaire to collect the data. Before starting the actual survey, we conducted a pilot survey with 30 respondents to check for suitability and precision of the questionnaire. We then made necessary modifications on the questions that needed further clarity. To get informed consent, we clarified

the objective of the study to the respondents specifying that the data they provide would only be used for research purpose. We further notified the participants that participation in this survey is completely voluntary and will have no harms or risks, and guaranteed the participants that the data they provide will be kept confidential. Informed consent was solicited before conducting the actual survey and all the participants gave their consent verbally. Finally, we conducted the survey on 311 rural women who participated in RLIPs selected from all rural areas of Korea between October and November 2022.

We also conducted two rounds of focus group discussion with experts from the regional and national rural life improvement committee members and rural women who participated in the rural life improvement programs to get an in-depth understanding about the programs implemented in Korea in the last couple of decades. The main points of discussion included recapitulating the historical trends by decade, major tasks undertaken by each RLIP, and the results achieved. The data obtained from the experts through focus group discussion has been incorporated into the results of the study according to their relevance to the point under discussion.

4.2. Measurement

Effect of RLIPs on quality of life of rural women was the dependent variable in this study. We measured it using five indicators with a five point Likert scale response ranging between 1 = strongly disagree and 5 = strongly agree, and the Cronbach's $\alpha = 0.784$ showed an acceptable internal consistency of the items. The items included improvement in decision making power, improvement in leadership capacity, improvement in economic conditions, improvement in life skills, and overall improvement in quality of life. We used the composite mean of these five items for regression purpose. The mean score for the effects of rural life improvement programs on quality of life was 4.2 (out of a possible maximum of 5.00).

The independent variables comprised respondents'

socioeconomic and demographic characteristics, participation period in the RLIPs, community satisfaction and community participation. The socioeconomic and demographic variables included age, education, length of residence, income, leadership experience, and type of residence in the community. Community satisfaction was measured by one indicator item, namely overall satisfaction with the community while community participation was measured using five indicators with a five point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree, and the internal consistency of the items was good (Cronbach's alpha = 0.811). The five community participation indicator items were membership in a community development organization, membership in local women farmer's association, attending community meetings, volunteering, and attending community events. The composite mean of these indicators was used to regress the effects of rural life improvement programs on rural women. The average score for community participation was 4.4 (out of a possible maximum of 5.00).

4.3. Data analysis

Data was analyzed using Statistical Package for Social Sciences (SPSS) version 26.0. Descriptive statistics were used to understand the basic characteristics of respondents. We then employed hierarchical regression technique using enter mode to identify the predictor variables of the effects of rural life improvement programs on quality of life of rural women. The hierarchical regression analysis was conducted in three steps. In model 1, we entered age, participation period in the rural life improvement programs, type of residence in the community, leadership experience, education, length of residence, and total annual income. Community satisfaction was entered into model 2 and finally, community participation was entered into model 3. The qualitative data obtained through focus group discussion was carefully transcribed, written into memos, coded, and grouped into themes. The qualitative data were written in combination with the quantitative data where they were relevant.

5. Results

As indicated in Table 1, the majority (60.8%) of the respondents were age 60-69 years, while only 0.6% were aged younger than 50 years and 2.9% aged 80 years or older, with the mean age of 64.6 years and standard deviation 6.06. Over 90% of the respondents were married while the rest 9.6% were unmarried. With regard to the total annual income, 13.8% of the respondents earned Korean Won (KRW) over 90 million while 5.5% earned less than KRW less than 10 million, the average annual income earned being KRW 47,575,562. The majority, 51.4% completed high school or

<Table 1> Profile of the respondents (N=311)

Variable	Category	N	%
Age	< 50	2	.6
	50 - 59	54	17.4
	60 - 69	189	60.8
	70 - 79	57	18.3
	>=80	9	2.9
Marital status	Married	281	90.4
	Unmarried	30	9.6
Total annual income*	<10,000,000	17	5.5
	10,000,000 - 30,000,000	76	24.4
	30,000,001 - 50,000,000	108	34.7
	50,000,001 - 70,000,000	55	17.7
	70,000,001 - 90,000,000	12	3.9
	>90,000,000	43	13.8
Level of education	Elementary school or lower	60	19.3
	Middle school	91	29.3
	High school	132	42.4
	Bachelor degree and higher	28	9.0
Type of residence	Native	227	73.0
	Returning to farm	84	27.0
Participation period in RLIPs	Since 1970s	47	15.1
	Since 1980s	108	34.7
	Since 1990s	99	31.8
	Since 2000s	57	18.4
Length of residence in the community	≤ 25 years	29	9.3
	26 - 35 years	80	25.7
	36 - 45 years	104	33.4
	46 - 55 years	50	16.1
	56 - 65 years	37	11.9
	>65 years	11	3.6

*Korean Won (KRW)

attained higher level and 73% of the respondents were native residents of the community where they belong while the rest 27% returned to farm before the year 2000. The data for participation period in the rural RLIPs showed that 15.1% of the respondents participated in the programs since 1970s while 18.4% participated in the program since 2000s. Over one-third (35.0%) of the respondents resided in their communities for 35 years or less period of time while the rest lived for 35 years or more period of time. The average year of residence in the communities was 41.4 years with standard deviation of 12.6.

5.1. Factors Influencing Effects of Rural Life Improvement Programs on Quality of Life of Rural Women

We conducted a hierarchical regression analysis to predict the factors influencing effects of RLIPs implemented in Korea on quality of life of rural women. In Table 2, we present the standard regression coefficient (β), the total variance explained (R^2), change in R^2 , F value, and Durbin-Watson (DW) value to show that the model fits to our data. The Durbin-Watson (DW) value of 1.772 revealed that there is no concern for autocorrelation in the model. The collinearity statistic values for Variance Inflation Factor (VIF), less than

2.0 and Tolerance values, between .813 and .962 also indicated no detection of multi-collinearity in the model (Hair et al., 2006).

Results of the hierarchical regression revealed (Table 2) that there was significant collective association ($F(7, 303) = 10.979$, $p < .001$, $R^2 = .202$) between the factors in the model 1 with effects of RLIPs on quality of life of rural women. The factors in this model also accounted for 20.2 % of the total variance explained. Investigating individual factors in the model also revealed that age ($\beta = .119$, $p < 0.05$) positively influenced the effect of RLIPs on rural women. The results show that the higher the age of respondents, the more likely they perceived positive effects of the programs on improvement of their quality of life. The results also revealed that respondents' residence type influenced the effects of RLIPs on quality of life of rural women. Native residents ($\beta = -.189$, $p < .001$) of the communities perceived positive effects of RLIPs on their quality of life than those who returned to farm into the rural communities before the year 2000.

Leadership experience of the respondents also tends to have a positive influence on the effects of RLIPs on rural women's quality of life. Respondents who had leadership experience in the rural life improvement programs were more likely to report ($\beta = -.271$, $p < .001$) the positive effects of

<Table 2> Hierarchical regression analysis

(N = 311)

	Model 1			Model 2			Model 3		
	B	β	t-value	B	β	t-value	B	β	t-value
Constant	4.062		12.815***	3.115		9.113***	2.312		6.732***
Age	.089	.119	2.011*	.085	.114	2.023*	.07	.101	1.911
Participation period in RLIPs	.017	.032	.541	.015	.028	.506	.029	.053	1.022
Type of residence (1= native, 2= returning to farm)	-.223	-.189	-3.487***	-.309	-.261	-4.940***	-.307	-.260	-5.237***
Leadership experience (1= yes, 2= no)	-.301	-.271	-5.064***	-.227	-.205	-3.934***	-.127	-.114	-2.255*
Level of education	.144	.247	4.101***	.123	.210	3.652***	.099	.169	3.115**
Length of residence	.001	.019	.311	.001	.013	.224	.001	.018	.324
Total annual income	.013	.070	1.230	.005	.028	.507	.003	.016	.310
Community satisfaction				.252	.310	5.840***	.087	.108	1.832*
Community participation							.339	.392	6.506***
F value	10.979***			14.919***			19.779***		
R^2	.202			.283			.372		
Adjusted R^2	.184			.264			.353		
ΔR^2				.081***			.088***		

* $p < .05$, ** $p < .01$, *** $p < .001$ Dependent variable: Effects of RLIPs on quality of life of rural women, Durbin-Watson = 1.772

the RLIPs than those without leadership experience. Similarly, level of education of the respondents was reported to have positively influenced effects of RLIPs on quality of life. Respondents with higher level of education were more likely to report the positive effects of RLIPs on quality of their life. In this model, participation period in the rural life improvement programs, length of residence in the communities and total annual income of the respondents did not statistically significantly influence effects of rural life improvement programs on rural women's quality of life.

The qualitative data from focus group discussion with the rural women who participated in the rural life improvement programs and experts of rural life improvement emphasized the role women leaders played through planning to implementation and evaluation stages of the programs. The discussants argued that leadership of the RLIPs, notably women leaders take the lion share of success factor for the life improvement programs implemented so far in Korea.

Adding community satisfaction into model 2 resulted in a significant change in R^2 of .081, $F(8, 302) = 14.92$, $p < 0.001$. Twenty-eight percent of the total variance in the regression equation was accounted after addition of community satisfaction to the model, resulting in an eight percent increase over the variance accounted for by model 1. Community satisfaction ($\beta = .310$, $p < .001$) positively influenced the effect of RLIPs on quality of life of rural women. The result implies that those respondents who were satisfied with living in the communities where they lived were more likely to perceive the positive effects of the rural life improvement programs on improvement of their quality of life.

This result was reinforced by the results from the focus group discussion with the rural women who participated in the rural life improvement programs and experts of rural life improvement. The focus group discussants indicated that residents with positive community sentiments tended to participate more in the community level life improvement programs as well as household and individual women targeting programs and as such benefited more from them.

In model 3, addition of community participation to predict the effects of RLIPs yielded in a statistically significant

increase in the R^2 of .088, $F(9, 301) = 19.78$, $p < .001$. With addition of community participation into model 3, the total variance explained turned out to be 37.2%, a nine percent increase from the total variance explained in the model 2. Model 3 showed that community participation ($\beta = .392$, $p < .001$) significantly positively influenced the effects of RLIPs on rural women indicating that those respondents who participated more in their community were more likely to report the positive effects of RLIPs on rural women's quality of life.

The data from focus group discussion with rural women who participated in the rural life improvement programs and with rural life improvement experts were consistent with this survey result. The focus group discussants repeatedly mentioned that active participants in the community reaped good amount of benefit the recurrently implemented rural life improvement programs.

6. Discussion and Conclusion

Korea's rural life improvement programs have been implemented with main goals of addressing rural depopulation and aging, narrowing income gap between the rural and urban, and ultimately improving the quality of life of rural residents (Choi et al., 2020; Park, 2019). As such, it has got tremendous achievements and greatly improved the quality of life in rural communities. It hugely contributed to addressing gender discrimination and empowerment of rural women through recurrent training on leadership and problem solving skills as well as helping them get financial independence (OECD, 2021).

In this study we investigated factors that influenced the effect of Korea's RLIPs implemented since early 1960s on the quality of life of rural women. The results revealed that the effect Korea's RLIPs had on the quality of life of rural women was influenced by multitude of factors. The effect of RLIPs on quality of life of rural women was significantly influenced not only by the respondents' socio-economic and demographic features but also by their community satisfaction

and engagement in their community. The effect the RLIPs yielded in the quality of life of rural women varied attributing among others to these factors.

Age of respondents positively influenced the effect of RLIPs on rural women who participated in the programs. The implication is that the higher the age of respondents, the more likely they perceived positive effects of the programs on improvement of their quality of life. This finding accords with previous studies (Choi et al., 2020; Gamo et al., 2021) that reported positive association of respondents' age with perceived benefits of a development project.

Leadership experience influenced the effects of RLIPs on quality of life of rural women with respondents with leadership experience perceiving more positive effects than those without leadership experience. More leadership experience means the respondents can get more exposure to and better awareness about the programs, engage more in the programs thereby possibly reaping more benefits (Bagherian, 2009; Dorsner, 2004). Moreover, respondents with leadership experience were more likely to get trainings specifically about the benefits of a program and strive to get those benefits. In most cases, project leaders elected from among community members are active community members who can be models to other members in implementing a given project. Data from the focus group discussion also indicated that women who were voluntarily elected to be a leader in the RLIPs were enthusiastic and committed to achievement of program goals. These women leaders, besides leading other women, were enthusiastically engaging in implementing the programs at their household level. The discussants further owed the lion share of the positive achievements of RLIPs to these women leaders because they were not only leaders but also responsible implementers. Our finding was in line with previous studies (Dorsner, 2004; Gamo et al., 2021) that reported leadership experience as a factor for difference in perceived benefits of a development project.

Our findings demonstrated the role level of education plays in influencing the effects of on quality of life of rural women. The higher number of completed years of education positively influenced rural women to perceive more effects

of the RLIPs. The general reason for this could be the fact that more years of education enables individuals get exposure to wider social networks and helps them build rich social capital. The rich individual level social capital in turn facilitates utilization of the available benefits easily (Li, & Tan, 2019). Furthermore, education has the capacity to broaden the horizon of individual's thought, beliefs, ideas, and alternatives, thus encouraging them to strive for a better opportunities and benefits (Nasrabadi et al., 2013). This finding corroborates with previous studies that reported positive influence of individual's level of education on the effects of development projects (Diallo, 2013; Datta, 2015; Hwang, & Lee, 2015).

Community satisfaction designates the entire assessment of the community by its residents on how much it fulfills their personal needs and provides benefits; and thus affected by past experience and current or future expectations (Hannscott, 2016; Potter, & Cantarero, 2014). Since satisfaction is a result of subjective evaluation and can be influenced by expectations, it can in turn affect perceived benefits from the community. Community satisfaction influenced the effects of the implemented life improvement programs on rural women's quality of life with residents having positive evaluation of their community perceiving more benefits than others. Residents who were satisfied with their community believed that the implemented RLIPs contributed to improvement of their living condition. Indeed, the principal goal of the RLIPs was creating a conducive community and household level residential environment. Among the elements of community satisfaction are availability of quality community amenities such as recreational areas, schools, health services, transport facilities, children play grounds, pet spaces, etc (Besser, & Miller, 2013; Nunkoo, & Ramkissoon, 2011). This implies that respondents satisfied with their community also recognized the contributions of RLIPs to improvement of community amenities. Findings of this study substantiate previous researches that reported community satisfaction influences perceived impacts of a development intervention (Nunkoo, & Ramkissoon, 2011; Park, Nunkoo, & Yoon, 2015).

The data from the focus group discussion also revealed

that residents with positive community sentiments tended to participate more in the community level life improvement programs as well as household and individual women targeting programs and as such reaped more benefits. This shows that such residents benefited from the combined effects of different sets of programs implemented to advance quality of life of rural residents. The discussants further indicated that those residents who liked their community as a place to live, engaged more in the life improvement programs with full commitment and, thus benefited more. Residents attached more to their community as well as satisfied more with living there have also the tendency to invest more to further make their life better while living in that community (Hannscott, 2016). Thus, the finding of our study that respondents satisfied more with living in their community perceived more benefits of the RLIPs becomes meaningful.

Community participation promotes interaction, cooperation, trust and support among members helping them act collectively on a common issue (Ang, 2019; Morris, & Gilchrist, 2011). Participation is a means to achieve goals of community improvement initiatives where increased community participation results in enhanced well-being for both the community and households (Atinga et al., 2019). Participation has also an intrinsic value due to the fact that individuals get satisfied with their decisions in which they participated even if the end result is different from their favorite (Mansuri, & Rao, 2013).

The findings of our study showed that community participation positively influenced the effects of RLIPs on quality of life of rural women designating that those respondents who participated more in their community were more likely to report the positive effects of RLIPs. On the other hand, the respondents who had less community participation were less likely to report the positive effects of RLIPs. The indicators used to measure community participation in this study were membership in a community development organization, membership in local women farmer's association, attending community meetings, volunteering, and attending community events. These indicators in turn have an implication that respondents who actively involved in

these indicator items were more likely to engage more and benefit from the RLIPs. Our findings support previous studies (Atinga et al., 2019; Gamo et al., 2021) that argued that community participation affects the benefits obtained from community development projects. Data from the focus group discussion also indicated that the RLIPs were implemented mostly in cooperation with the rural women's organizations. The discussants further indicated that the active members of these rural women's organization were also the ones who actively implemented and benefited from the rural life improvement programs. They further mentioned the active role of members of rural women's organizations and the dedication of women extension workers as prominent reasons for the achievements of rural life improvement programs.

Unlike report by previous studies (Awortwi, 2012; Bagherian, 2009; Gamo et al., 2022), participation period in RLIPS, length of residence in the community, and total annual income earned by the respondents did not significantly influence effect of RLIPs on rural women in our study. This shows that length of years of participation in the RLIPs and length of residence in the community were not sufficient enough to make the respondents perceive the benefits of the programs, indicating that other factors more predicted the effects of the programs. Annual income of the respondents was also not a significant factor to influence the respondents' perception of benefits obtained from the programs.

All in all, the significance of our study lies at its attempt to comprehensibly assess the effects of RLIPs on quality of life of rural women. We analyzed the effects of RLIPs on quality of life of rural women by using a mixed research design that enables profound understanding of the problem under investigation. The findings of this study contribute to knowledge related to impacts of development projects as they demonstrated the factors that can enhance or limit rural residents' capacity to benefit from interventions intended to improve their living conditions. The findings also further our understanding of an intervention impact study that the effects of a development project could not be evenly reaped by different groups of people residing in a community with different factors partaking in the entire process to influence

the outcome.

Like all other studies, our study has some limitations. We used a cross-sectional research design to collect data at a time from the respondents. Data obtained through the longitudinal research design would have been better to elaborate the effects of rural development projects implemented across several years. Thus, causality and generalizability of our findings becomes difficult to establish. Our relatively small sample size also makes the observed relationships in our study less likely to be generalizable. Furthermore, the factors we examined in our regression model accounted for 37.2% of the total variance explained in the model, implying that there are also other factors predicting the perceived effects of the RLIPs not included in our study. We, therefore, suggest that future studies use a longitudinal study design and larger sample size to validate our findings. This can also help extrapolate the results and assess their applicability in the other socio-cultural contexts. Future researches ought to explore why participation period in RLIPs and length of residence in the community could not influence perceived effects of the RLIPs. Despite these limitations, the study investigated the prominent factors affecting rural women's capacity to benefit from RLIPs. Thus, it complements the limited literature related to impacts of rural development projects.

We conducted this study with the aim of exploring the factors that influence the effect of Korea's rural life improvement programs implemented across the last couple of decades on the quality of life of rural women. Respondents' satisfaction with their community and participation in their community together with their socio-demographic characteristics influenced the perceived effects of RLIPs. The implication is that the effects of a development project could not be uniformly earned by different categories of people in a community. Thus, addressing residents' community sentiment and community participation can help them actively engage in development interventions intended to improve their quality of life and benefit more from the interventions.

Policy makers, community development practitioners and community leaders can benefit from our study in several

ways. Rural policy makers and development planners should take into account that the benefits intended for the targeted recipients of a development intervention can be influenced by individuals' socio-economic and community sentiment related characteristics. The findings also suggest that community development practitioners and community leaders should engage in mechanisms of enhancing residents' community sentiment and community involvement as these factors influenced respondents perceived effect of the rural life improvement programs.

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