sustainability

MDPI

Article

Social Exclusion and Switching Barriers in Medicare Part D Choices

Dong Woo Ko [1], Young Han Bae [2] and Jayoung Han [3,*]

[1] School of Business, Hankuk University of Foreign Studies, Seoul 02450, Korea; dko@hufs.ac.kr
[2] Department of Marketing, Pennsylvania State University, Greater Allegheny, McKeesport, PA 15132, USA; yzb1@psu.edu
[3] School of Pharmacy and Health Sciences, Fairleigh Dickinson University, Florham Park, NJ 07932, USA
* Correspondence: jayoung@fdu.edu; Tel.: +1-973-443-8419

Received: 9 June 2018; Accepted: 10 July 2018; Published: 11 July 2018

Abstract: Previous studies have shown that Medicare beneficiaries do not tend to switch their prescription drug plans (Part D), even though they can greatly save on the money spent on drugs by switching plans. To explore this occurrence, the present study focused on the concept of social exclusion—one of the most important characteristics prevalent in the elderly. This study compared the impact of two types of social exclusion on the association between psychological cost and plan switching: active (or rejected) social exclusion and passive (or ignored) social exclusion. The study's aim was to examine the moderating effect of social exclusion on the relationship between the cost of switching and willingness to switch plan to build sustainable health care system. The Prescription Drug Study supplementary to the Health and Retirement Study (HRS) data were utilized for analysis by applying a Hierarchical Linear Model (HLM) (N = 1042). The findings suggest that active social exclusion moderates the relationship between the switching cost and willingness to switch plan. This study's findings will help policymakers better understand the elderly's decision-making process pertaining to plans and promote their informed plan decisions to build sustainable health care system.

Keywords: sustainable health care system; ignored; rejected

1. Introduction

The Medicare drug plan (hereafter referred to as Part D) has been a primary source of coverage for the prescription drug for the US Medicare beneficiaries since the Medicare Modernization Act (MMA) was effectuated in 2006. As of 2015, 46 million elderly people, older than 65 years, have been provided health insurance through the Medicare program—37.9 million beneficiaries of whom have enrolled in the Part D plans [1].

Medicare beneficiaries are highly encouraged to evaluate their plan options annually and switch to a better plan, if required. This is because insurers frequently change plan features such as co-payment, co-insurance, or formulary every year. Beneficiaries' adequate response to plan changes is critical to sustain health care market's stability and patient's access to needed health care.

Although Part D beneficiaries can benefit from switching plans, previous studies have revealed that most beneficiaries are not willing to evaluate their plan features in years subsequent to their enrollment and tend to continue with their initially chosen plan [2,3]. Furthermore, studies have presented that beneficiaries have not chosen the lowest cost plan and overpaid to cover drug costs [4,5].

The consumers' tendency to not switch service providers does not come as a surprise. It is often observed that, in a continuous purchasing setting, consumers do not switch providers despite seriously considering doing so [6]. The reason behind non-switching being of particular concern in health insurance is that patients have been found to forgo their medications (e.g., skipping doses and splitting

pills) to cope with the high drug expenditure, resulting in poor health outcomes (e.g., poor blood pressure control) [7,8].

In addition, one of the most critical issues is that many health insurance companies set prices based on such consumers' inertia tendencies. The U.S. federal government allows private health insurance companies to participate in the Medicare Part D market to promote price competition. The underlying assumption is that rational consumers would evaluate given plan choices, selecting the plan best for them. However, it turns out that Part D enrollees are hardly responsive to plan changes (e.g., premium increase) and insurers abruptly raise the price as soon as the target market penetration is reached. For example, according to Ericson (2012), insurance companies set low prices for new customers, but increase premium every year for existing customers [9].

This creates negative impact on both consumers and health care system. Consumers face financial burden, limiting themselves from using needed health care. Consequently, the health care system suffers from the highly dominating health insurance market and increased health care expenditures. Hence, there is the need to understand consumers' health care decision process, creating a sustainable health care system.

In the marketing literature, various factors have been found to be associated with switching decisions such as brand loyalty [10], product availability [11], and switching costs [12]. Part D enrollees may be loyal to a certain brand of health insurance or may not find the appropriate plan to switch to, but we consider the switching costs to be the most salient factor influencing choices regarding Part D because of the complexity of plan features and associated cognitive burden of consumers.

Especially, Part D is designed to target patients over 65 years of age. Unlike other marketing research, Part D health care industry needs special attention, as health care market suffers from more uncertainties than commercial market because of health insurance and information asymmetry, and the symptom is more severe for the targeted elderly beneficiaries in Part D. They commonly experience social exclusion, and the nature of the complex health care system increases their burden.

The switching cost is defined as the psychological cost for switching providers [13] and was found to be a barrier to the consideration of switching plans for those who were not satisfied with their current plan [14].

This study focused on the relationship between the switching cost and willingness to switch and the role played by social exclusion in that relationship that has been known to influence individuals' motivational origins [15]. Several older adults suffer a loss of contact with their families and friends and have fear regarding social participation [15]. They also attempt to avoid the stigma associated with age—being dependent, old, and decrepit by taking on the difficulties alone [16]. The strategy of lonely older adults to cope with such age-relevant issues may reflect in the way they deal with switching cost, such as when they decide whether to change the Part D plan.

Hence, our study offers a novel approach to investigate the moderating role of social exclusion in the relationship between switching costs and willingness to switch plans; particularly, comparing two types of social exclusion—being rejected (i.e., explicit, active, and direct exclusion) versus being ignored (i.e., implicit, passive, and indirect exclusion) [17].

The present study makes three key contributions pertinent to Part D plan choices. First, the study adopts psychological perspectives to understand the underlying mechanism of patients' decision-making regarding plans. A large body of marketing and social science literature has been devoted to study the role of social exclusion in consumers' decision-making; however, limited attention has been paid to it in the context of health care where special attention is required because of the complex nature of market characteristics and characteristics of its target consumers. Second, for insurance firms with several prospective switchers as a part of their customer base, it is important to understand the reasons behind why these customers stay and to what extent such firms can further discourage them from leaving (in both positive and negative ways). Finally, for service firms looking to attract these prospective switchers (e.g., new entrants into the market), understanding Part D beneficiaries' non-switching behavior is important, as it will enable them to develop strategies to overcome the switching barriers and gain their market share.

2. Conceptual Framework

Switching costs represent the psychological or emotional costs associated with switching providers or products. People are required to consider the emotional or switching costs of collecting and interpreting alternative information and benefits [13]. Switching cost has been broadly studied in retention management to understand consumers' willingness to continue with an incumbent product or brand [18–20].

The term switching cost has been used to represent multiple dimensions. Among various labels and categorizations of switching cost, this study adapts the classification by Burnham and colleagues (2003). They categorized switching cost into procedural, financial, and relational switching costs. Procedural switching cost represents the expenditure of time and efforts and is further categorized into economic risk cost (cost of accepting the new provider's uncertain performance), evaluation cost (cost of learning process, searching, and analyzing information), and set-up cost (cost of initiating the relationship with new provider). Financial costs involve losses incurred by financially quantifiable resources, and relational cost refers to the emotional discomfort caused by the loss of individual or brand relationships [21].

Along with the previous literature [14], this study focuses on procedural switching cost because of its relevance in the context of Part D choices. Part D beneficiaries have to accept the uncertainty around the coverage and cost of new plans (economic risk cost), compare various plans (evaluation cost), and fill out forms for the process (set-up cost) [14].

The targeted age group (older than 65 years), is generally at the threshold of retirement or getting excluded from social activities. Older adults suffer from depression and limited interaction with their friends and families due to loss of jobs, family's relocation, drop in income, or decline in health.

The feeling of belongingness is a fundamental aspect of human nature that enables people to maintain stable social interactions and uphold their own safety [22]. Socially excluded experiences thwart the sense of belongingness and influence individual's emotions, cognitive process, and behaviors accordingly [23]. For example, socially excluded people tend to conform to other's suggestions [24], displaying purchasing behaviors different from socially included people [25].

To understand the fundamental drivers of human behaviors, this research employs regulatory focus, commonly used in marketing literature such as donation behavior [26], perception of advertisement [27] and eco-behavior [28]. Especially, socially excluded people differently developed motivations. Molden and colleagues (2009) investigated two types of social exclusion: being rejected and being ignored, and their impacts on consumers' motivation. When one feels rejected, it generates a sense of social loss, resulting in prevention-focused responses. In contrast, when one feels ignored by others, it promotes the sense of failure to achieve social gain, resulting in promotion-focused responses. Furthermore, individuals pursue different decision outcomes depending on the types of motivation; prevention-focused motivation leads people to focus on losses of outcomes as opposed to promotion-focused motivation, which leads people to non-gains of outcome [17,29]. These systematic motivational differences provide preliminary evidence that distinct origin of social exclusions influence patients' information processing and behaviors when the expected outcomes concern about losses and non-gain choices. To understand the effect of social exclusion on Part D beneficiaries, we point out the relevance between psychological costs and social exclusion.

More specifically, Part D beneficiaries who feel rejected will possess a prevention-focused motivation toward switching plans and care about whether they lose anything from it. In contrast, Part D beneficiaries who feel ignored will present promotion-focused motivation toward plan switching and care about whether they do not benefit out of plan switching. The different origins of motivation to switch plans and decision outcomes to pursue are expected to influence the way willingness to switch plans interacts with switching cost.

We, thus, suggest that the commonly noticed phenomenon of social exclusion among Part D beneficiaries influences their willingness to switch, depending on how they are motivated and perceive the alternative options as either losses or non-gains.

Specifically, when beneficiaries have experienced rejections from the society they will try to avoid the present negative outcome. Thus, prevention-focused motivation will make people focus on avoiding loss of outcomes and perceive more costs to procedure to alternative options. Thus, as beneficiaries experience social rejection, procedure switching cost negatively moderates the willingness to switch plan. On the other hand, when beneficiaries experience ignorance from the society, they would be motivated to avoid the absence of positive outcome, feeling less amount of procedure cost. Similarly, the complex nature of health insurance will make it difficult to judge the quality of outcomes; however, they would focus on the positive aspects of alternative options, feeling less amount of procedure cost in a decision-making procedure.

Accordingly, this study investigated the moderating effect of social exclusion on the relationship between switching cost and willingness to switch plans and hypothesized the following:

Hypothesize 1 (H1). *Socially rejected group would be more influenced by procedure psychological cost than socially ignored group.*

Hypothesize 2 (H2). *Being rejected group will feel more procedure psychological cost in plan switching behaviors.*

Hypothesize 3 (H3). *Being ignored group will feel less procedure psychological cost in plan switching behaviors.*

3. Materials and Methods

3.1. Data and Variables

Consistent with our conceptual framework, examining an association between switching cost and Part D beneficiaries' plan switching behavior across different beneficiary groups defined by their rejected or ignored characteristics, our study considered the beneficiaries' willingness to switch (WTS) as the dependent variable of our empirical analysis. Further, our research regarded a variety of controlling covariates, including individual beneficiary's demographic variables such as gender, cultural effect (US-born), and education level in addition to the focal covariates measuring individual beneficiary's switching costs, including economic risk cost (Uncertainty), evaluation cost (Evaluation), set-up cost (Set-up), and complexity (Complexity). Moreover, the study incorporated two rejected and ignored variables to define different beneficiary groups.

Accordingly, we collected our data from sources ensuring that they contain all these variables. We obtained data on all the above-mentioned variables from the 2007 Prescription Drug Study (PDS) database and the 2006, 2008, and 2010 Health and Retirement Study (HRS) databases of the University of Michigan's HRS survey research center and then merged these datasets. More specifically, we obtained information on the WTS (P2B15); premium (P2A5A); switching cost variables, including Uncertainty, Evaluation and Set-up; and one of the controlling covariates, Complexity, from the PDS database. We collected information on demographic variables such as gender, race, education, and rejected and ignored variables defining different beneficiary groups from the HRS database (Table 1).

In the combined dataset, we formulated binary indicator variables to represent an individual beneficiary's demographic information in an empirical analysis employing a regression model. Specifically, we created a demographic gender binary variable (male beneficiaries equal to 1 and other beneficiaries equal to 0) along with a US-born binary variable (US-born beneficiaries equal to 1 and beneficiaries from other countries equal to 0). Additionally, the education variable is a categorical variable with an order (e.g., the higher the value, the higher education the beneficiary has obtained).

Since our conceptual framework aims to explore the switching cost–beneficiary switching behavior connection across different beneficiary groups defined by their rejected or ignored characteristics, we defined the four groups based on these two variables. Specifically, we implemented a median split method to classify the beneficiaries into high and low reject groups and high and low ignored groups.

After this data management, our final dataset comprises 1042 observations with thirteen variables, including the WTS-dependent variable and the eight covariates presented above. The final dataset comprises information on individual beneficiaries' WTS behavior and their demographics and

psychological cost. By exploiting these covariates, we can explore the effects of individual beneficiaries' switching cost on their switching behavior toward another Part D plan. We can also identify heterogeneity on these effects across the four different groups defined by their rejected or ignored characteristics (i.e., how these effects vary across different groups). The majority of our final sample was born in the U.S. (91.3%). About six in ten individuals in the sample were white (59.3%) and female (65.2%). About a quarter of the sample earned college or higher degree (16.9%). Mean premium was $70.32 per month (Table 2).

Table 1. Variables specifics.

Variable (Cronbach's α)	Items	Context
Complexity (0.683)	P2d1I	I had difficulty understanding how Medicare Part D works and what savings it would provide.
	P2D1B	It was difficult to determine whether specific medications are covered by the plans that are offered.
	P2d7G	I have difficulty understanding the information about Medicare coverage options.
Setup (0.811)	P2d1C	There were too many alternative plans to choose from.
	P2d1E	The enrollment process was very complicated.
	P2d1F	I had difficulty getting my questions answered.
Learning (0.750)	P2D7F	I often feel overwhelmed because there is too much information about each plan to take in.
	P2D7I	I am confused about the changes in Medicare.
Uncertainty (0.720)	P2D7A	I am more likely to make a wrong choice if I have lots of different options to choose from.
	P2D7H	Whenever I make a choice about Medicare, I worry it will be the wrong one.
Rejected (0.766)	KLB030A	You are treated with less courtesy or respect than other people.
	KLB030B	You receive poorer service than other people at restaurants or stores.
	KLB030C	People act as if they think you are not smart.
Ignored (0.790)	KLB020C	How often do you feel isolated from others?
	KLB020B	How often do you feel left out?

Table 2. Sample Characteristics.

Variables	Characteristics
White	59.3%
Education (Degree)	
Less than high school	83.2%
College or higher degree	16.8%
Born in U.S.	91.3%
Female	65.2%
Premium, mean *	$70.32

* Premium: The amount of money that Part D beneficiaries pay to insurer on a monthly basis.

There seems to be no issue for multicollinearity, because there are no significantly high correlations between these covariates, as shown in Table 3. As such, it is reasonable to fit our empirical model to the final dataset.

Table 3. Correlation.

	1	2	3	4	5	6	7	8	9	10
1 Gender	1									
2 U.S.BORN	−0.082 **	1								
3 Education	−0.64 **	−0.166 **	1							
4 Premium	−0.067	0.088 *	−0.004	1						
5 Complexity	−0.014	−0.123 **	0.208 **	−0.082	1					
6 Set UP	0.045	0.008	−0.025	0.094 *	−0.537 **	1				
7 Learning	−0.095 **	−0.069 *	0.253 **	−0.071	0.625 **	−0.354 **	1			
8 Uncertainty	−0.084 *	−0.085 *	0.270 **	−0.062	0.653 **	−0.302 **	0.670 **	1		
9 Rejected	0.080	−0.020	0.005	0.136 *	0.051	−0.063	0.037	0.036	1	
10 Ignored	−0.081	−0.038	0.159 *	0.031	0.221 **	−0.133 *	0.215 **	0.188 **	0.196 **	1

This is the Table 3 legend. * $p < 0.1$, ** $p < 0.05$ *** $p < 0.001$.

3.2. Model Specification

Consistent with our conceptual framework, which intends to examine the association between individual beneficiaries' psychological costs and their switching behavior and investigate how the link varies across four different beneficiaries' groups, we employed a two-level Hierarchical Linear Model (HLM) (e.g., Anderson et al., 2004 [30]; Gruca and Rego, 2005 [31]).

Specifically, we incorporated individual beneficiaries' demographics, including gender, cultural variable (US-born), and education level; their switching cost variables, including Uncertainty, Evaluation, and Set-up variables; Complexity (antecedent of switching cost); and the Premium variable in the following HLM formulation:

$$\begin{aligned} \text{WTS}_i = \beta_0 + \beta_1\,\text{Gender}_i + \beta_2\,\text{USborn}_i + \beta_3\,\text{Education} + \beta_4\,\text{Premium}_i + \beta_5\,\text{Complexity}_i \\ + \beta_6\,\text{Setup}_i + \beta_7\,\text{Evaluation}_i + \beta_8\,\text{Uncertainty}_{ij} + \varepsilon_i, \end{aligned} \tag{1}$$

for the individual beneficiary i, $i = 1, 2, \ldots, 1042$.

To explore the heterogeneity of the individual beneficiary switching cost–switching behavior connection across the rejected and ignored groups, we included the rejected and ignored group variables along with the interaction terms between their switching cost variables (including Set-up, Learning, and Uncertainty) and the rejected and ignored group variables:

$$\begin{aligned} \text{WTS}_i = \beta_0 + \beta_1\,\text{Gender}_i + \beta_2\,\text{USborn}_i + \beta_3\,\text{Education} + \beta_4\,\text{Premium}_i + \beta_5\,\text{Complexity}_i \\ + \beta_6\,\text{Setup}_i + \beta_7\,\text{Evaluation}_i + \beta_8\,\text{Uncertainty}_i + \beta_9\,\text{Rejected}_i + \beta_{10}\,\text{Ignored}_i + \beta_{11} \\ \text{RejectedSetup}_i + \beta_{12}\,\text{RejectedEvaluation}_i + \beta_{13}\,\text{RejectedUncertainty}_{ij} + \beta_{14} \\ \text{IgnoredSetup}_i + \beta_{15}\,\text{IgnoredEvaluation}_i + \beta_{16}\,\text{IgnoredUncertainty}_{ij} + \varepsilon_i, \end{aligned} \tag{2}$$

for the individual beneficiary i, $i = 1, 2, \ldots, 1042$.

4. Empirical Analysis and Results

Estimation: We estimated our empirical HLM, specified in Equations (1) and (2), following the HLM procedure in the SPSS software package with a maximum likelihood algorithm. In Table 4, we present the maximum likelihood estimation results as a series of nested model specifications of our HLM, from the benchmark model with only switching cost variables to the full specification (i.e., proposed model) with additionally included variables, such as the rejected and ignored group variables and interaction terms between these group variables and switching cost variables.

Goodness of Fit: In terms of the goodness of fit of the specifications of our HLM, the full specification of our HLM fits the data better than the benchmark model [30,31] as the AIC (Akaike Information Criterion) value for the full specification is smaller than that for the benchmark one (Benchmark model = 1641.290 vs. proposed model = 767.435). This goodness of fit result indicates that, inclusion of such group variables as rejected and ignored, and the interaction terms between the group variables and switching cost variables in the proposed model that estimates the effect of rejected and ignored groups on switching cost, helps significantly improve the fit over the benchmark model (Table 4).

Table 4. Hierarchical Linear Model results.

	Benchmark Model (1641.290)			Proposed Model (767.435)		
	B	**SE**	***t*-Value**	***r***	**SE**	***t*-Value**
Gender	−0.041	0.095	−0.431	0.015	0.126	0.117
U.S. Born	0.010	0.494	0.020	0.597	0.312	1.918 *
Education						
Education D1	−0.622	0.317	−1.958 *	−1.653	0.440	−3.758 ***
Education D2	−0.448	0.348	−1.287	−1.150	0.485	−2.372 **
Education D3	−0.460	0.309	−1.487	−1.229	0.426	−2.882 ***
Education D4	−0.229	0.394	−0.581	−0.942	0.577	−1.635
Education D5	−0.287	0.323	−0.891	−1.257	0.447	−2.811 **
Education D6	−0.237	0.346	−0.685	−0.965	0.495	−1.949 *
Premium	0.003	0.0001	5.459 ***	0.001	0.001	2.141 **
Complexity	−0.090	0.035	−2.586 ***	−0.059	0.048	−1.221
Set-up	0.113	0.043	2.599 ***	−0.004	0.064	−0.062
Learning	−0.008	0.039	−0.216	−0.148	0.079	−1.880 *
Uncertainty	0.034	0.035	0.991	0.138	0.076	1.825 *
Rejected				−0.975	0.545	−1.788 *
Ignored				0.203	0.551	0.368
Rejected * Learning				−0.190	0.107	−1.785 *
Rejected * Uncertainty				0.173	0.102	1.690 *
Rejected * Setup				0.124	0.079	1.569
Ignored * Learning				−0.019	0.113	−0.168
Ignored * Uncertainty				0.021	0.107	0.201
Ignored * Set-Up				−0.035	0.079	−0.443

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$. Note. Education D1–D7 represent no degree, GED, high school diploma, two-year college diploma, four-year college diploma, master degree, and doctoral or professional degrees, respectively. D7 was the reference category.

Hypotheses Testing: Accordingly, we tested our hypotheses in the conceptual framework based on the reliable coefficient estimates from the full specification of the HLM. The parameter estimates revealed that premium (Premium), cultural effect (US-born), and education level significantly influenced the willingness to switch. Specifically, as monthly premium ($r = 0.001$, $t = 2.141$, $p < 0.05$) increases, beneficiaries are willing to switch from their existing plan, whereas, compared to the highest level of education (Education D7), people with a lower level of education are less likely to switch their plans. Furthermore, compared to foreign-born beneficiaries, US-born beneficiaries were more likely to switch their plans (Table 4).

The parameter estimate of a two-way interaction demonstrates the interaction effect between switching costs and social exclusion. Especially, when beneficiaries experienced rejection in their daily life, the effect on the plan changing behaviors is close to significant: they were less likely to change their plan as compared to those who had less experience of rejection ($r = -0.975$, $t = -1.788$, $p < 0.1$). Experience of being ignored did not significantly influence beneficiaries' willingness to switch plans ($r = 0.203$, $t = 0.551$, $p = 0.690$).

The parameter estimation of a two-way interaction between the types of social exclusion (rejected vs. ignored) and individual level of switching costs exhibited that the feeling of rejection is close to a significant association with Uncertainty ($r = 0.173$, $t = 1.690$, $p < 0.1$) and Evaluation ($r = -0.190$, $t = -1.785$, $p < 0.1$). As the feeling of rejection and evaluation cost increased, beneficiaries were more likely to continue with the existing plan. Moreover, as the feeling of rejection and economic risk cost increased, beneficiaries were more likely to change their plan. However, the ignored group was not significantly influenced by the switching cost in the plan switching decision, implying that the promotion-focused Part D beneficiaries perceive less switching cost in their switching decisions.

5. Discussion

We discovered the effect of procedural switching cost on the willingness to switch plan and moderating effect of social exclusion on that relationship. Evaluation and economic risk costs were statistically significantly associated with the willingness to switch plans; this fundamental effect was buffered among the people feeling ignored, while the effect was enhanced in the people feeling rejected. To the best of our knowledge, this is the first study to incorporate the concept of social exclusion in health care-related decision-making.

We observed that people feeling highly rejected were less likely to change plans than those feeling a little rejected. People who have experienced social exclusion communicated in an explicit and direct manner (i.e., rejected) have prevention-focused motivations and tend to withdraw from social contact, become highly vigilant concerning the circumstances, which may cause the exclusion, and search for the information representing the negative outcomes of their decisions [16]. The plan switching process involves active information search and social contact; therefore, not participating in the plan switching process can appear to be a logical option for people who feel highly rejected.

We also noted that the effect of switching cost, particularly evaluation and economic risk costs, on the willingness to switch plan was significantly intense in people feeling highly rejected. They were found to be even less likely to switch plans when they perceived the time and efforts to learn about the new plan as significant. The evaluation cost is easily predictable for individuals based on their self-evaluation of learning abilities, and the rejected would consider this information as a loss. The presence of the evaluation cost would make the rejected feel anxious about potential failure to identify and transfer to the right plan, resulting in their low probability of switching plans.

Contrary to our expectations, we found a negative relationship between economic risk cost and willingness to switch plans. The economic risk cost, cost of accepting uncertain negative outcome associated with plan switching, is not salient information for individuals unlike evaluation cost. People who feel rejected may have failed to perceive this information as a loss or have searched for more information to gain a clear understanding about the presence of the loss in switching decisions. More research is required to better understand this relationship.

People who feel ignored, have experienced social exclusion communicated in an implicit and indirect manner, and have promotion-focused motivation become eager to impress others by exhibiting attention-seeking behavior such as, buying luxury goods [16,32]. Plan switching is not the type of behavior that calls attention to the self, thus it was not significantly influenced by the extent to which people feel ignored.

The findings of this study help to overcome the blind spot of the health care system, highly dominating health insurance market and increased health care expenditures. Mutual satisfaction [33] and efficient system to drive economic benefits [34] play a key role in building sustainable health care services. However, health care providers have set prices based on the prediction of the beneficiaries' inertia effect.

According to Han et al. (2014), Part D beneficiaries indicated low level of satisfaction about their current health insurance plan despite inertia effects being maintained. To overcome the situation, it is necessary to understand clearly the behavioral characteristics of target beneficiaries. This study considered the feature of social exclusion frequently experienced by individuals over 65 years old, who actually benefit from Part D. The findings of this research will play an important role in building a long-term based and efficient health care system [14].

Our finding pertaining to the moderating effect of social exclusion on the relationship between switching cost and willingness to switch suggests that older adults may respond to the policy better if they feel more integrated into society. Being rejected threatens relational needs, including self-esteem and belongingness, and results in them vigilantly withdrawing from social contact and making decision geared toward maximally protecting themselves. Therefore, helping older adults regain social contact can improve their responses to the policy, an important factor for building a sustainable health care system. Furthermore, promotional or educational Part D materials focusing on "loss" information

may not effectively encourage plan switching, because older adults with rejected experiences will place excessive importance on that information and become overly cautious. The message-framing effect has been studied in health communication area: gain-framed messages were more effective for the decisions to receive preventive health services, whereas loss-framed messages were favored for the decisions to receive diagnostic health services [35]. Properly framed promotional materials will improve the elderly's decisions regarding plan switching.

6. Limitation

We analyzed secondary data with an assumption that socially rejected vs. ignored groups would present prevention-focused vs. promotion-focused motivation. Although we did not perform a direct manipulation check of motivation, our assumption was considered reasonable based on previous literature.

Author Contributions: D.W.K. and J.H. conducted literature review, conceptualized the study and contributed to writing of all sections. Y.H.B. analyzed the data, developed the methodology and wrote the Method and Results Sections.

Funding: This research was supported by Hankuk University of Foreign Studies South Korea Research fund.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, and in the decision to publish the results.

References

1. Cubanski, J.; Swoope, C.; Boccuti, C.; Jacobson, G.; Casilas, G.; Griffin, S.; Neuman, T. *Primer on Medicare: Key Facts about the Medicare Program and the People It Covers*; Henry J. Kaiser Family Foundation: Menlo Park, CA, USA, 2015; Available online: https://www.kff.org/medicare/report/a-primer-on-medicare-key-facts-about-the-medicare-program-and-the-people-it-covers/ (accessed on 16 October 2017).
2. Hoadley, J.; Hargrave, E.; Summer, L.; Cubanski, J.; Neuman, T. *To Switch or Not to Switch: Are Medicare Beneficiaries Switching Drug Plans to Save Money?* Henry J. Kaiser Family Foundation: Menlo Park, CA, USA, 2013; Available online: https://www.kff.org/medicare/issue-brief/to-switch-or-not-to-switch-are-medicare-beneficiaries-switching-drug-plans-to-save-money/ (accessed on 16 October 2017).
3. Perry, M.; Dulio, A.; Cubanski, J. *Voices of Beneficiaries: Medicare Part D Insights and Observations One Year Later*; Henry J. Kaiser Family Foundation: Menlo Park, CA, USA, 2006; Available online: https://www.kff.org/medicare/report/voices-of-beneficiaries-medicare-part-d-insights/ (accessed on 16 October 2017).
4. Abaluck, J.; Gruber, J. Choice inconsistencies among the elderly: Evidence from plan choice in the Medicare Part D program. *Am. Econ. Rev.* **2011**, *101*, 1180–1210. [CrossRef] [PubMed]
5. Zhou, C.; Zhang, Y. The vast majority of Medicare Part D beneficiaries still don't choose the cheapest plans that that meet their medication needs. *Health Aff.* **2012**, *31*, 2259–2265. [CrossRef] [PubMed]
6. Ranaweera, C.; Prabhu, J. The influence of satisfaction, trust and switching barriers on customer retention in a continuous purchasing setting. *Int. J. Serv. Ind. Manag.* **2003**, *14*, 374–395. [CrossRef]
7. Kurlander, J.E.; Kerr, E.A.; Krein, S.; Heisler, M.; Piette, J.D. Cost-related nonadherence to medications among patients with diabetes and chronic pain factors beyond finances. *Diabetes Care* **2009**, *32*, 2143–2148. [CrossRef] [PubMed]
8. Soumerai, S.B.; Pierre-Jacques, M.; Zhang, F.; Ross-Degnan, D.; Adams, A.S.; Gurwitz, J.; Adler, G.; Safran, D.G. cost-related medication nonadherence among elderly and disabled Medicare beneficiaries: A national survey 1 year before the Medicare drug benefit. *Arch. Intern. Med.* **2006**, *166*, 1829–1835. [CrossRef] [PubMed]
9. Marzilli Ericson, K. Consumer Inertia and Firm Pricing in the Medicare Part D Prescription Drug Insurance Exchange. *Am. Econ. J. Econ. Policy* **2014**, *6*, 38–64. [CrossRef]
10. Kim, M.K.; Park, M.C.; Jeong, D.H. The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommun. Policy* **2004**, *28*, 145–159. [CrossRef]
11. Ryan, M.; Yule, B. Switching drugs from prescription-only to over-the-counter availability: Economic benefits in the United Kingdom. *Health Policy* **1990**, *16*, 233–239. [CrossRef]
12. Klemperer, P. Markets with consumer switching costs. *Q. J. Econ.* **1987**, *102*, 375–394. [CrossRef]

13. Porter, M.E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*; Free Press: New York, NY, USA, 1980.
14. Han, J.; Ko, D.; Urmie, J.M. The role of satisfaction and switching costs in Medicare Part D choices. *Res. Soc. Adm. Pharm.* **2014**, *10*, 398–407. [CrossRef] [PubMed]
15. Scharf, T.; Keating, N. *From Exclusion to Inclusion in Old Age: A Global Challenge*; Policy Press at the University of Bristol: Bristol, UK, 2012.
16. Goll, J.C.; Charlesworth, G.; Scior, K.; Stott, J. Barriers to social participation among lonely older adults: The influence of social fears and identity. *PLoS ONE* **2015**, *10*, e0116664. [CrossRef] [PubMed]
17. Molden, D.C.; Lucas, G.M.; Gardner, W.L.; Dean, K.; Knowles, M.L. Motivations for prevention or promotion following social exclusion: Being rejected versus being ignored. *J. Pers. Soc. Psychol.* **2009**, *96*, 415–431. [CrossRef] [PubMed]
18. Weiss, A.M.; Heide, J.B. The nature of organizational search in high technology markets. *J. Mark. Res.* **1993**, *30*, 220–233. [CrossRef]
19. Farrell, J.; Shapiro, C. Dynamic competition with switching costs. *RAND J. Econ.* **1988**, *19*, 123–137. [CrossRef]
20. Karakaya, F.; Stahl, M.J. Barriers to entry and market entry decisions in consumer and industrial goods markets. *J. Mark.* **1989**, *53*, 80–91. [CrossRef]
21. Burnham, T.A.; Frels, J.K.; Mahajan, V. Consumer switching costs: A typology, antecedents, and consequences. *J. Acad. Mark. Sci.* **2003**, *31*, 109–126. [CrossRef]
22. Baumeister, R.F.; Leary, M.R. The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychol. Bull.* **1995**, *117*, 497–529. [CrossRef] [PubMed]
23. Pickett, C.L.; Gardner, W.L. The Social Monitoring System: Enhanced Sensitivity to Social Cues as An Adaptive Response to Social Exclusion. In *The Social Outcast: Ostracism, Social Exclusion, Rejection, and Bullying*; Williams, K.D., Forgas, J.P., Hippel, W., Eds.; Sydney symposium of social Psychology Series; Psychology Press: New York, NY, USA, 2005; pp. 213–226.
24. Williams, K.D.; Cheung, C.K.; Choi, W. Cyberostracism: Effects of being ignored over the internet. *J. Pers. Soc. Psychol.* **2000**, *79*, 748–762. [CrossRef] [PubMed]
25. Mead, N.L.; Baumeister, R.F.; Stillman, T.F.; Rawn, C.D.; Vohs, K.D. Social exclusion causes people to spend and consume strategically in the service of affiliation. *J. Consum. Res.* **2010**, *37*, 902–919. [CrossRef]
26. Park, K.; Ryu, G. The Effect of Regulatory Focus on Individuals' Donation Behavior. *Sustainability* **2018**, *10*, 760. [CrossRef]
27. Lin, C.Y.; Yeh, W.J. How Does Health-Related Advertising with a Regulatory Focus and Goal Framing Affect Attitudes toward Ads and Healthy Behavior Intentions? *Int. J. Environ. Res. Public Health* **2017**, *14*, 1507.
28. Bonera, M.; Corvi, E.; Codini, A.P.; Ma, R. Does Nationality Matter in Eco-Behaviour? *Sustainability* **2017**, *9*, 1694. [CrossRef]
29. Higgins, T.E. Promotion and prevention: Regularly focus as a motivational principle. *Adv. Exp. Soc. Psychol.* **1998**, *30*, 1–46.
30. Anderson, J.O.; Milford, T.; Ross, S.P. Multilevel Modeling with HLM: Taking a Second Look at PISA. In *Quality Research in Literacy and Science Education*; Shelley, M.C., Yore, L.D., Hand, B., Eds.; Springer: Dordrecht, The Netherlands, 2009; pp. 263–286.
31. Gruca, T.S.; Rego, L.L. Customer Satisfaction, Cash Flow, and Shareholder Value. *J. Mark.* **2005**, *69*, 115–130. [CrossRef]
32. Lee, J.; Shrum, L.J. Conspicuous consumption versus charitable behavior in response to social exclusion: A differential needs explanation. *J. Consum. Res.* **2012**, *39*, 530–544. [CrossRef]
33. Faezipour, M.; Ferreira, S. A system dynamics perspective of patient satisfaction in healthcare. *Procedia Comput. Sci.* **2013**, *16*, 148–156. [CrossRef]
34. Crisp, N. What would a sustainable health and care system look like? *Br. Med. J.* **2017**, *358*, j3895. [CrossRef] [PubMed]
35. Bartels, R.D.; Kelly, K.M.; Rothman, A.J. Moving beyond the function of the health behavior: The effect of message frame on behavioural decision-making. *Psychol. Health* **2010**, *25*, 821–838. [CrossRef] [PubMed]