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## Original Research

# The importance of health literacy in the development of 'Self Care' cards for community pharmacies in Ireland

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### ABSTRACT\*

**Objectives:** 'Self Care' cards play a significant role in delivering health education via community pharmacies in Australia and New Zealand. The primary objective of this study was to evaluate whether such an initiative could have a similar impact in an Irish context. The secondary objective was to understand the importance of health literacy to this initiative.

**Methods:** Ten cards were developed for the Irish healthcare setting and trialed as a proof of concept study. The pilot study ran in ten community pharmacies in the greater Cork area for a six-month period. Using a mixed methods approach (Questionnaires & focus group) staff and patient reactions to the initiative were obtained. Concurrent to the pilot study, readability scores of cards (Flesch-Kincaid, Fry, SMOG methods) and the Rapid Estimate of Adult Literacy in Medicine (REALM) health literacy screening tool was administered to a sample of patients.

**Results:** 88.7% of patient respondents (n=53) liked the concept of the 'Self Care' cards and 83% of respondents agreed that the use of the card was beneficial to their understanding of their ailment. Focus groups with Pharmacy staff highlighted the importance of appropriate training for the future development of this initiative. An emerging theme from designing the cards was health literacy. The pilot 'Self Care' cards were pitched at too high a literacy level for the general Irish public to understand as determined by readability score methods. It was found that 19.1% of a sample population (n=199) was deemed to have low health literacy skills.

**Conclusion:** The 'Self Care' initiative has the potential to be Pharmacy's contribution to health education in Ireland. The initiative needs to be cognizant of the health literacy framework that equates the skills of individuals to the demands placed upon them.

**Keywords:** Health Literacy. Comprehension. Community Pharmacy Services. Ireland.

### IMPORTANCIA DE LA LITERACÍA EN SALUD EN EL DESARROLLO DE TARJETAS 'AUTO CUIDADO' PARA LAS FARMACIA COMUNITARIAS EN IRLANDA

#### RESUMEN

**Objetivos:** Las tarjetas 'Auto Cuidado' [*Self Care*] juegan un papel significativo en la provisión de educación sanitaria a través de las farmacias comunitarias en Australia y Nueva Zelanda. El objetivo primario de este estudio fue evaluar si una iniciativa similar podría tener impacto en el contexto irlandés. El objetivo secundario fue entender la importancia de la literacia en salud para esta iniciativa.

**Métodos:** Se desarrollaron 10 tarjetas para el entorno sanitario irlandés y se ensayaron con un estudio de prueba de concepto. El estudio piloto corrió en 10 farmacias comunitarias en el gran Cork durante seis meses. Se obtuvieron las reacciones del personal y pacientes hacia la iniciativa con el uso de métodos mixtos (cuestionarios y grupos focales). Simultáneamente al estudio piloto, se calcularon las puntuaciones de legibilidad de las tarjetas (métodos de Flesch-Kincaid, Fry, SMOG) y se administró a una muestra de pacientes el instrumento de rastreo de literacia en salud Rapid Estimate of Adult Literacy in Medicine (REALM).

**Resultados:** Al 88,7% de los pacientes (n=53) les gustó el concepto de tarjetas 'Auto Cuidado' y el 83% de los respondentes aceptó que el uso de la tarjeta era beneficioso para la comprensión de su enfermedad. Los grupos focales con personal de la farmacia resaltaron la importancia del entrenamiento adecuado para el futuro desarrollo de esta iniciativa. Un tema emergente del desarrollo de las tarjetas fue la literacia en salud. Las tarjetas piloto 'Auto Cuidado' tenían inclinación hacia un nivel demasiado elevado de literacia para que el público general irlandés las entendiese, como se determinó por los métodos de legibilidad. Se vio que el 19,1% de la muestra (n=199) estaba considerada como de bajas habilidades en literacia de la salud.

**Conclusión:** La iniciativa 'Auto Cuidado' [*Self Care*] tiene la posibilidad de ser una contribución de la farmacia a la educación sanitaria en Irlanda. La iniciativa necesita ser consciente del marco de literacia en salud que conecta las habilidades de los individuos a las demandas que se les solicitan.

**Palabras clave:** Literacia en salud. Comprensión. Servicio de farmacia comunitaria. Irlanda.

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## INTRODUCTION

The Pharmaceutical Society of Ireland (PSI) through its Pharmacy Ireland 2020 initiative, "seeks to encourage, facilitate and support the greater involvement of pharmacists in the delivery of integrated, patient-centered, cost-effective health services, and the development of pharmacy services in Ireland in line with international evidence and best practice".<sup>1</sup> An initiative that may potentially improve community pharmacy services in Ireland is the successful 'Self Care' initiative that was initially developed by the Pharmaceutical Society of Australia (PSA) and subsequently adopted by the Pharmaceutical Society of New Zealand (PSNZ). The PSA devised their 'Self Care' initiative in 1986, with 'Self Care' cards as the pivotal component of their strategy to provide a minimum standard of health education to patients from community pharmacies.<sup>2</sup>

The 'Self Care' cards in Australia cover over 80 topics. The individual cards are organized under headings such as "Signs and Symptoms", "Causes", "Medicines" and "Important information about when to see the doctor". The headings vary depending on the health topic covered by the card. However, what is common across the spectrum of topics is a section on "Self Care". This section suggests practical advice that a person can adopt to live a healthier lifestyle, specifically in relation to the minor ailment in the card. The other initiative in the marketplace that serves this health education function is the Healthpoint<sup>TM</sup> Technologies health information kiosks (Camberwell Australia).

Determining the success of 'Self Care' cards is whether patients are able to read, understand and apply the information given. According to the International Adult Literacy Survey conducted for the Organisation for Economic Co-operation and Development in 1997, over 50% of the Irish population are affected in some way by literacy difficulties.<sup>3</sup> Health literacy concerns the knowledge and competences of persons to meet the complex demands of health in modern society.<sup>4</sup> The 1998 national representative Survey of Lifestyle, Attitude and Nutrition estimated that 17.4% of respondents had difficulties in reading and understanding health information<sup>5</sup> and the results of the newly published European Union Health Literacy Survey (EU-HLS) suggests that four out of every ten people in Ireland have inadequate health literacy.<sup>6</sup> The significance of poor health literacy skills is a significant link to poorer health outcomes, excessive healthcare utilization and expenditures.<sup>7</sup>

The Rapid Estimate of Adult Literacy in Medicine (REALM) is a screening tool used to assess patients' ability to pronounce sixty-six medical terms and is used as a proxy measurement of their health literacy status.<sup>8</sup> We used this US- validated screening tool as part of our research into assessing the health literacy level of a sample population living in Ireland. There are legitimate concerns with the use of REALM as an appropriate health literacy tool. It must be noted that REALM was designed as a screening tool and not as a measurement tool. REALM has been used widely in

the literature and only takes 1-2 minutes to administer. For these reasons, we used it as our proxy for one's health literacy status.

Our primary research objective - Are 'Self Care' cards acceptable and beneficial to the practice of Community Pharmacy in Ireland? The secondary objective was to assess the importance of health literacy to developing this initiative.

## METHODS

This research project had a number of distinct phases - The development of the cards, agreement from pharmacies to pilot the cards and partake in the research, obtaining feedback from patients. The final phase involved conducting health literacy research to evaluate the complexity of the cards and to assess the ability of a sample of patients.

### Development of the 'Self Care' Cards

A baseline questionnaire to capture the most frequently enquired-about minor ailment or disease condition was designed by members of the Pharmaceutical Care Research Group (School of Pharmacy, UCC), piloted and modified before use in the pilot community pharmacies. This questionnaire facilitated the compilation of the most enquired-about topics so that 'Self Care' cards could be developed on an evidence-based rationale. Pharmacy staff of 10 pharmacies in the greater Cork region completed the questionnaire after every over-the-counter (OTC) medicine sale or ailment consultation. This questionnaire process lasted for four weeks during November 2007.

Permission was sought and gained from the PSA and the PSNZ to use their 'Self Care' cards as a template for the cards that were used in this pilot study. Modifications of health information were largely based upon Irish legislation and brand names. Counsel was also sought from National Adult Literacy Agency (NALA) and use was made of their publications in writing health material using plain English.<sup>9</sup> Plain English is a style of presenting information that helps patients understand what they read first time. By applying NALA's plain English guidelines, appropriate language, detail and design should help patients quickly find the information they need on the 'Self Care' card.

Each card was printed on paper weighing 200g/m<sup>2</sup> with dimensions of 245x170cm. The pictures used in the pilot study were produced in-house except for the 'Cold Sore' picture that was purchased from the Science Photo Library (London, UK). The logo & card was patented (Irish Patents Office, Kilkenny). All cards had disclaimer information, which stated, "that the information was not a substitute for advice from a healthcare professional". The study ran from January to June 2008.

In January 2008, the distribution of the cards began with each pharmacy (n=10) receiving an initial supply of 50 cards per minor ailment topic. A presentation (20-30 minutes) by the principal investigator advising the staff on how to incorporate the card into counseling was conducted at each pilot site. Additional written instructions on how to

Table 1. Estimated age of patients surveyed who entered the 10 pilot community pharmacies seeking advice during a 4-week period. (Total N=617)					
Estimated Age Ranges (years) of Patients Surveyed					
	18-35	36-50	51-69	>70	Total
Females	159	105	60	12	336
Males	99	76	42	10	227
Total	258	181	102	22	563

optimally use the cards was given to all pharmacists and staff within the pharmacies.

### Study Sites

The Horgan Pharmacy Group (HPG) provided the test sites for this pilot study. HPG consists of 10 community pharmacies located in the greater Cork region of Ireland with both rural and urban pharmacies equally represented within the group. In nine of the ten pharmacies, a health information kiosk (Healthpoint™ Technologies) was fully operational at the time of the pilot study. This allowed for a direct comparison of the 'Self Care' cards with the established competitor in the marketplace. Ethics committee approval from Clinical Research Ethics Committee of the Cork Teaching Hospitals, University College Cork (UCC) was granted for this study.

### Patient Feedback

In February 2008, all pharmacies were asked to recruit patients (over a 4-week period) who had been given a 'Self Care' card for a focus group/telephone survey. This was achieved via a short 5-question Likert scale survey, which also asked patients to provide contact details if they were interested in partaking in a focus group/telephone survey. The interviews then took place in June 2008.

### Staff Feedback

In June 2008, semi-structured staff focus groups and one-on-one interviews with key personnel took place in 5 pharmacies and the results were transcribed verbatim to identify specific themes. A confidential staff survey was sent to all pharmacies. The survey was a mixture of a 21-statement questionnaire (e.g. I like the concept of 'Self Care' cards) using a 5-point Likert-scale (Strongly disagree to strongly agree) with an additional 6 open-ended questions (e.g. what topics would you like to see covered?).

### Health Literacy Component

Prior to the commencement of pilot study, no formal readability assessment was carried out. The importance of readability assessment will give a quantitative estimate of what grade level (reading age) the cards were written at. Three formal readability methods were used: Flesch-Kincaid<sup>10</sup>, Fry<sup>11</sup> and SMOG<sup>12</sup> to assess the 'Self Care' cards. Flesch reading ease was also used.

The REALM screening tool was initially piloted in a community pharmacy setting, lack of willing participants led to establishing a cohort of patients from anticoagulation clinics in Cork University Hospital (CUH) and the Mercy University Hospital (MUH). Ethics approval was granted from the Clinical Research Ethics Committee of the Cork

Teaching Hospitals and UCC. On fifteen separate dates between May and July 2008, patients who were attending the anticoagulation clinics were approached and invited to participate in the study. Anticoagulant clinics in both hospitals were chosen because patients had long waiting times and would have sufficient time to complete the REALM tool with the investigator.

The inclusion criteria to participate in the REALM were that the patients were over 18 years of age, and attending the anticoagulation clinic. The exclusion criteria were patients considered to be too ill or distressed to participate; patients who suffered from sight or hearing impairment, and patients that did not speak English as their first language. We used a cut-off point of 60 or lower on the REALM score to be indicative of low health literacy in our research. This is the cut-off point that is equivalent to a high school student in the US and also used by Shea *et al.*<sup>13</sup>

### Data Analysis

SPSS Software Version 16.0 (SPSS, Chicago, Ill, USA.) was used to analyse the data. Pearson chi-squared statistic test was used to assess the relationship between two categorical variables. A p-value of <0.05 was deemed to be statistically significant.

## RESULTS

### Baseline Questionnaire

A total of 617 questionnaires were returned from the 10 pharmacies. The range of completed questionnaires per pharmacy was vast with a low of 17 responses to a high of 108 responses. Staff had identified themselves on 598 (96.9%) of the questionnaires. 563 (91.2%) questionnaires identified the age/gender demographics of patients. Table 1 shows the demographics of patients recorded entering the test site pharmacies to seek health advice. From the total number of questionnaires (n=617) returned, a cumulative total of 673 ailment enquiries were recorded. 117 different combinations of enquiries were recorded of which 75 were individually different topics.

In the opinion of the staff at least 45.2% of patients would have been receptive to written information. In at least 52.5% of the queries dealt with by staff, they would have liked to provide additional written information.

As there was a limited budget involved in this project (EUR3,000), only 10 Self-Care cards were produced. It was decided that to maximize the impact of the cards that the top 11 ailments be incorporated in 10 cards. This meant that 'coughs' and 'sore throats' would be amalgamated in one card.

Patient	Gender*	Age Range (yrs)	Pertinent Statements
1	F	50-59	"The Government should really pay for it"
2	F	60-69	"I think it has to be free"
3	F	50-59	"Brand sponsorship wouldn't bother me"
4	F	20-29	"There is great information on them"
5	M	20-29	"probably not pay...get it on the internet"
6	F	20-29	"Important information on Government Schemes"
7	M	30-39	"Good information especially for foreigner like me"
8	F	40-49	"Easy terms compared to other things that you would be reading...simple isn't the word but easy to understand"
9	F	20-29	"Ireland needs a more preventative approach to health"

\*F= Female; M= Male

### Patient Survey

The patient survey consisted of 5 questions, to which responses were indicated on a Likert-scale. 88.7% (47/53) of respondents liked the concept of the 'Self Care' cards and 83% (44/53) of respondents agreed that the card was beneficial to their understanding of their ailment(s). 86.8% (46/53) of respondents would like to see the 'Self Care' cards available in 'their pharmacy'. The issue of paying for the card yielded ambivalent results with only 22.6% (12/53) respondents giving a monetary value (50cent was the mode response).

Due to the poor response in recruiting patients for the focus group, telephone interviews (n=9) were conducted. This represents a 50% success rate. Table 2 outlines the demographics of those interviewees and some comments. Broad topics that interviewees would like to see covered included: minor ailments, chronic diseases and how to navigate the healthcare service. Specific information on lifestyle modifications, pregnancy, children, and embarrassing/sensitive issues were also mentioned. A nominal fee of 10 cent per card would be acceptable; however, two out of the nine interviewees were unwilling to pay for the card and believed it should be part of the pharmacy service.

### Staff Survey

In total, there were 32 respondents to the staff survey. The number of full-time staff in the ten pharmacies was 42, which gives a response rate of 76.2% (32/42). Of these 32 respondents, 25 identified their job position within the pharmacy. The general staff feedback on the 'Self Care' cards was that the initiative was very useful in providing an added-value service for patients. A ratio of greater than 2 to 1 of staff preferred the 'Self Care' cards to

the Healthpoint™ kiosk. The most cited reason given from the staff survey was that it enabled the staff to communicate face-to-face with the patient.

An interesting finding from the staff focus groups was that all staff (Medication assistants, dispensary technicians and pharmacists) felt that training would be essential in the development of the initiative. They would welcome in-house training on using the cards effectively and also welcome broader public health education. In semi-structured interviews, pharmacists felt that the profession as a whole would need to buy into the 'Self Care' initiative.

### Qualitative data

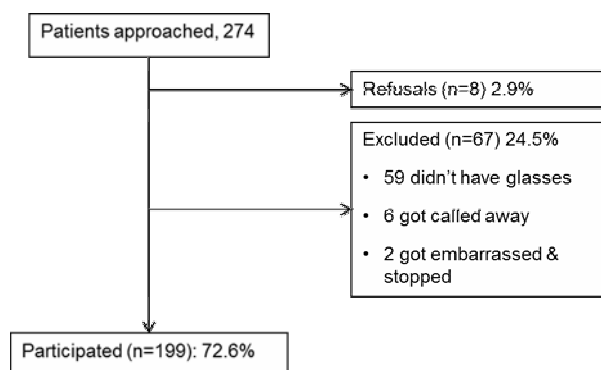
The final section on the staff survey allowed for free-text comments that staff felt was important in relation to the initiative. Some staff thought the concept was "brilliant" and were a "...great addition to the pharmacy" as customers "...appreciate extra information, they can refer to in their own time" and made useful suggestions "...posters to notify customers of the availability of 'Self Care' cards would be helpful". The most complimentary statements referred to the benefit to the patient. "Thanks for bringing the cards to our pharmacy. It helps patients to identify what they need to look out for" and staff felt that most patients were happy to receive the cards. Staff did however highlight the need for more expansive training in using the cards more effectively.

### Health Literacy Component

The two aspects of health literacy that were covered in this study were related to the complexity of the 'Self Care' cards (assessed by the readability scores) and the skills/abilities of individuals to comprehend medical terminology.

Topic	Flesch Reading Ease score	Flesch-Kincaid (FK) Grade Level Score <sup>10*</sup>	Fry <sup>11</sup> Grade Level Score	SMOG <sup>12</sup> Grade Level Score
Colds & Flu	48.8	10.0	7.8	10.31
Cough & Sore Throat	60.4	7.6	9.5	9.64
Constipation	54.7	9.2	10.3	13.89
Sinus problems	57.0	8.3	13.7	11.58
Eye ailments	55.8	8.5	6.9	11.36
Cold sores	67.0	7.1	12.2	10.26
Headache	59.8	8.6	9.3	11.24
Skin Ailments	60.3	6.9	17	10.94
Heartburn & Indigestion	44.8	10.1	7.4	12.58
Mouth ulcers	68.9	6.4	10.1	8.72
Average	57.75	8.27	10.42	11.05

\* The 'Self Care' cards should be aimed at a level that a 12-year-old schoolchild would be able to understand. Assuming the school reading age of a 12 year old US educated child is similar to do of an Irish educated child. A typical 7<sup>th</sup> grader is 12-13 years old. Source: U.S. Department of Education, 2008. <http://www.ed.gov> (accessed: 12<sup>th</sup> December 2008)



highly likely that the entire sample would visit a community pharmacy to collect their medication. Though this result is not generalizable, it does indicate that a significant proportion (1 in 5) may have difficulty comprehending the terminology that a

Figure 1. Recruitment summary for REALM screening tool from anticoagulation clinics in Cork

Community Pharmacist may use in relation to their healthcare requirements.

## DISCUSSION

Initially this project was thought of as a piece of translational work - bringing a 'best practice' idea, 'Self Care' cards, to a new jurisdiction. However, it soon became clear that a deeper issue, health literacy, would need to be explored. Therefore, the processes involved in bringing the 'Self Care' initiative to fruition has evolved into a piece of research that advocates the health literacy message as its bottom-line.

As a proof of concept pilot study concerning the intervention, 'Self Care' cards, our findings show that patients and pharmacy staff would welcome such an initiative. However, if this initiative is to be developed by the PSI, they must be cognizant of health literacy.

At an Institute of Medicine workshop in the US, a new concept coined as the "Health Literacy framework" considers that - "One must align skills and abilities with the demands and complexity of the system. When that is accomplished, one has health literacy".<sup>14</sup>

From our research (readability scores), the 'Self Care' cards were written at a level that would not be understood by the general public. Our estimate is that one fifth of whom would have low health literacy skills. Therefore, the future of the 'Self Care' initiative may well be its development as an empowerment tool to those who have limited health literacy in a community pharmacy setting. It is crucial that adult educators be involved in developing the 'Self Care' initiative. An organization, such as NALA would be a welcome partner in this process.

The collection of baseline data indicated the mixed response from the ten pharmacies. Thus, highlighting the major limitation of this research -

## Readability of 'Self Care' Cards

In the US, the recommended level that health education material should be pitched at is 5th-8th grade (Reading age: 10-14 years).<sup>8</sup> By the Flesch-Kincaid (FK) method, seven cards had grade level 8 or below. However, by the FRY and SMOG method only three and one card respectively was below grade 8 reading level. The 'Flesch Reading Ease' has a recommended target range of 60 to 70. Only 40% (4/10) of the cards were within this range (Table 3).

Analysis of 'Self Care' cards readability scores showed variation depending upon which formula was used. As was expected, the FK scores had the lowest average readability level of 8.27 but Fry (10.42) and SMOG (11.05) were unacceptably high. Drug names, especially for the 'Skin' card was a major contributing factor to this result.

## REALM

A total of 274 patients were approached and asked if they would like to take part in this study, after refusals and exclusions a total of 199 completed the REALM screening tool (Figure 1). The gender breakdown was predominately female (n=112; 57.7%) Table 4 shows the results of the research. The range of scores went from 20 to a maximum of 66. Of the 66 medical words in the assessment, 47 participants (23.6%) scored the maximum. This was also the mode. The median REALM score was 64 with an interquartile range of between 62 and 65. The older the patient the lower the REALM score achieved. The more educated the patient, the higher their REALM score.

Based on our REALM study results, 19.1% of the respondents had low health literacy levels. It is

Characteristic	Adequate health literacy (n=161), n (%)	Low health literacy (n=38), n (%)	p-value (Pearson's Chi-squared)
Gender			0.137
Male	65 (40.4)	17 (44.7)	
Female	91 (56.5)	21 (55.3)	
Education Level			0.000
No Primary School	-	1 (2.6)	
Primary School	40 (24.8)	18 (47.4)	
Inter/ Junior Cert	24 (14.9)	7 (18.4)	
Leaving Cert	43 (26.7)	2 (5.3)	
3 <sup>rd</sup> Level	40 (24.8)	3 (7.9)	
	Mean (SD), range	Correlation with REALM score (Spearman rho)	
Age	61.5 (15.0), 19-89	-0.149	0.030

relying on staff in busy commercial businesses to collect accurate data. Similar studies in community pharmacies in the UK have shown that this can be a major limitation in carrying out pharmacy practice research in commercial-driven community pharmacies.<sup>15</sup> From a health service researcher perspective, the collection of patient data is dependent on the staff's commitment and honesty. In Irish pharmacies, the culture of scientific evaluation is not the norm and is highlighted by the relevant dearth of research conducted in this setting. This lack of research is to the detriment of the profession. The PSI has mandated (Nov 2010) that all pharmacies have a patient counseling room; this may have an added benefit of encouraging and enabling pharmacy practice research in the future.

The success of the 'Self Care' cards initiative ultimately depends on the patient response. If patients feel empowered by this service that community pharmacy offers them; then pharmacy is showing its added value. Over ten years ago, a small study (n=112) indicated that 18% of patients surveyed used pharmacy as their first choice of health information in Ireland.<sup>16</sup> Patients need to recognize that pharmacists are more than a 'drug expert' and 'Self Care' cards are a way of doing this. It is the responsibility of Pharmacy professional bodies and other pharmacy advocacy groups to highlight this latent potential and ensure that community pharmacy has a greater role in the Department of Health and Children's primary care strategy.<sup>17</sup>

The feedback from the patients in this pilot study shows that pharmacy's involvement in the public health field would be welcomed. A recent systematic review stated, "Consumers viewed pharmacists as appropriate providers of public health advice but had mixed views on the pharmacists' ability to do this".<sup>18</sup> The 'Self Care' initiative is ideally suited to bridge the gap.

Patients universally appreciated the concept of the 'Self Care' cards but there is scope for improvement in designing the cards. That is why professional advice in designing the cards would be essential should this initiative go any further. NALA recommend that healthcare providers use the Suitability Assessment of Materials (SAM) instrument that provides more meaningful results than other readability formulae.<sup>19</sup> SAM is a 17-item checklist which allows authors of health-related materials to quickly assess the appropriateness of materials for patients; SAM goes beyond measures of word and sentence length and brings authors attention to elements of text.<sup>20</sup>

A report by the Committee on Safety of Medicines Working Group on Patient Information in the UK recommend user-testing and attaining the 'Crystal Mark' from the Plain English Campaign.<sup>21</sup> Therefore, most empirical evidence suggests that it is the collaboration of educators and healthcare professionals that will improve the standard of written health-related materials and hence the importance of NALA's support to the 'Self Care' initiative.

Staff awareness highlighted issues regarding the importance of providing unambiguous, accurate health information. Therefore, it is imperative that a rigorous auditing process be put in place should 'Self Care' be adopted. A collaborative effort from the public sector Pharmacy Community in producing these cards to the highest possible standard would be required. Our findings suggest a training program would be hugely beneficial. What should be asked of the public health service is that their regional Community Care Pharmacists be involved in delivering this training.

The preference of staff to use 'Self Care' cards over the HealthPoint kiosk is important to note. However, as a systematic review shows that people value oral communication more than written communication hence 'Self Care' cards ought to be seen as a complement rather than a substitute for advice.<sup>22</sup>

An interesting economics study that used a discrete choice experiment methodology in Scotland concluded that patients prefer to self-care; but if professional health advice were required they would prefer to seek community pharmacy advice.<sup>23</sup> Our research highlighted that medicines assistants are the frontline of the Community Pharmacy service. The benefit of the cards to a supervising pharmacist is that it is a training manual for such staff members, many of who are learning on the job.

The health literacy component of our study indeed confirms that approximately one in five patients (19.1%) will have difficulty understanding health information due to low health literacy skills. The recent EU-HLS estimated that double that proportion has difficulties understanding health information in Ireland. Our results are similar to assessments carried out in the UK that use health literacy screening tools.<sup>24,25</sup> The consequence of health literacy research in the USA has seen its profile rise and now there is a National Action Plan.<sup>26</sup> In Europe, Health Literacy is gaining a much higher profile and has been debated in European parliament.<sup>27</sup> In the UK, under the Labour government, Health Literacy was a key component of the Department of Health's (England) Health Inequalities strategy.<sup>28</sup> Recently, health literacy in community pharmacy has been explored to highlight the complex nature of the patient-pharmacy encounter.<sup>29</sup>

## CONCLUSIONS

This research uses empirical evidence to show that health literacy is an issue in Ireland and that healthcare organizations (such as the PSI) need to be cognizant of the health literacy framework. The main findings include the need to work in partnership with adult educators in providing health education. A culture of conducting pharmacy practice research in Ireland needs to be cultivated. Many stakeholders would need to buy-in to the 'Self Care' initiative for it to work as effectively as in Australia and New Zealand.

This research was essentially a proof of concept study; the question whether a fully implemented 'Self Care' cards initiative would work in Ireland

would require a certain leap of faith by the appropriate decision-maker. We recommend that a fully implemented 'Self Care' initiative would have a range of 35-40 cards/leaf desk pads and should be evaluated over a longer period of time. However, what should be borne in mind is that the real winners in providing health education through community pharmacies in Ireland are the Irish public.

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## CONFLICT OF INTEREST

No conflict of interest to report.

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