



## The Voice of Patients Really Matters: Using Patient-Reported Outcomes and Experiences Measures to Assess Effectiveness of Home-Based Integrated Care—A Scoping Review of Practice

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Review

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**Abstract:** Background: The aim of the study is to analyze the prevalence of using patients' reported outcomes measures and experiences (PROMs and PREMs) in relation to integrated care (IC). Material and methods: To select eligible studies (<10 years, full-text), PubMed was used. The general subject of the articles referring to the type of disease was indicated on the basis of a review of all full-text publications discussing the effectiveness of IC (N = 6518). The final search included MeSH headings related to outcomes measures and IC. Full-text screening resulted in including 73 articles (23 on COPD, 40 on diabetes/obesity and 10 on depression) with 93.391 participants. Results: Analysis indicated that authors used multiple outcome measures, with 54.8% of studies including at least one patient reported. PROMs were more often used than PREMs. Specific (disease or condition/dimension) outcome measures were reported more often than general, especially those dedicated to self-assessment of health in COPD and depression. PROMs and PREMs were most commonly used in studies from the USA and Netherlands. Conclusion: Using PROMS/PREMS is becoming more popular, although it is varied, both due to the place of research and type of disease.

**Keywords:** chronic obstructive pulmonary disease (COPD); depression/mood disorder; managed care; multidisciplinary care; obesity; patient adherence

#### 1. Introduction

Analysis of the effectiveness of care has traditionally focused on objective clinical indicators. According to international HTA (health technology assessment) guidelines, to conduct research on the effectiveness of treatment, hard endpoints, followed by clinically relevant surrogate points, must be used [1]. Today, the discussion on the role of other outcomes is open and ongoing. Using Patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs) seems to be increasingly relevant for assuring a good quality of care and supporting gathering knowledge considering disease course. It is believed that their role is particularly important in patient-focused care models, i.e., in integrated care and integrating treatment methods from various areas [2,3]. Integrated care is currently accepted as a form of care around the world; however, its understanding and definition may vary depending on the perspective or purpose for which such a definition is built [4]. A health system-based definition provides that it should be understood as: "health services that are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course" [5]. Integrated care is provided through integrated care programs that proactively organize and coordinate the comprehensive delivery of both health and social care services, aiming to improve patient outcomes and reduce healthcare expenses [6].

PROMs are questionnaires or scales that allow for the measurement of the results of treatment from the patient's perspective [7]. They can be divided into generic, disease-



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**Copyright:** © 2022 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). specific and condition/dimension-specific [8–10]. PREMs bring information on how patients conceive medical care. Relational PREMs deal with relations between patients and medical personnel, patients' expectations and preferences. Functional PREMs are related to basic expectations about technical issues related to delivering healthcare [11]. Information obtained from tools such as PROMs and PREMs are used in many ways: in scientific research, projects improve the quality of care and audits and are conducted for pharmacoeconomic purposes [12]. They allow the management of healthcare in a patient-centric manner and gain feedback from healthcare providers that can be used in building quality improvement strategies [13]. Moreover, they allow clinicians to better understand patients and identify those health outcomes that are crucial from the patient's point of view [14]. The collection of this type of data is supported by researchers who indicate that attachment to routinely used outcome measures can lead to a marginalization of patient needs and implementation of treatment that will be characterized by low compliance [15,16]. Although the importance of patient-centered outcomes is unquestionable, some doubts are raised considering the reliability of data. The quality of measurement is determined by how data is obtained and with the use of research tools [17]. It was found that there are statistically significant differences in assessing the relevance of symptoms by a doctor and a patient [16,18]. Information collected through PROMs and PREMs can be used in many areas: providing individual medical care of good quality or supporting the decision-making process in managing healthcare.

The relevance of this study for understanding the idea and role of patient-centric care is significant as it provides a comprehensive set of basic knowledge about research using data coming directly from patients, identifies areas in which their role is already proven, and where there is still a need to work on increasing the dissemination of usage of such indicators. Moreover, the collection of data based on patient-reported measures might result in numerous positive results, among others: support for communication between medical staff and patients, increase in patient satisfaction and compliance, and enabling patients to control their own health condition better. These elements are crucial for providing effective integrated care and, in a broader aspect, a successful healthcare system based on a value-based approach.

#### 2. Material and Methods

The main research question in this scoping review was what is the prevalence of using outcomes measures reported by patients remaining under the support of integrated care (IC). The paper also sets specific questions:

1. What types of PROMs and PREMs are used to describe the effectiveness of IC programs? Are there differences in the use of PROMs and PREMs depending on the type of disease and the country?

The studies included in the analysis concerned:

- 2. The patients suffering from one of three chronic diseases: COPD, obesity/diabetes or depression, who received integrated care.
- 3. The intervention discussed was integrated care, which was assessed by researchers in terms of its effectiveness.

The comparison included an analysis of type, time and place of outcomes measures reported by patients receiving integrated care. Additionally, all indicators that were used by researchers to describe the IC used were subject to a preliminary quantitative assessment. Outcomes measures were a basic element of the analysis, along with an assessment of the frequency of using PROMs and PREMs, their type, the place of conducting the research and the date of publishing.

The study design included two stages (Figure 1).

# Stage 1. Determining the types of diseases in which integrated care is most often used and assessed by researchers in terms of effectiveness



#### Stage 2. Search of studies evaluating IC in: diabetes and/or obesity, depression and COPD with



#### Figure 1. Search strategy.

Due to the fact that many PROMs and PREMs are dedicated to a specific disease, PubMed first searched to determine which chronic conditions research on the effectiveness of integrated care is carried out most often. Analysis of 6518 available full-text articles indicated that in the first place, most often, these are mental diseases and addiction to psychoactive substances 14.48% (mostly depression), many coexisting conditions (13.63%), diabetes and/or obesity (12.18%), breastfeeding and childcare (7.07%), chronic obstructive pulmonary disease—COPD (6.30%), palliative care and chronic pain (6.05%) and others (including among others: malaria, HIV, bedsores, infectious diseases, osteoporosis, allergies, psoriasis, multiple sclerosis)—17.21%. As a result, the overview was performed on the three most common diseases—diabetes and/or obesity, depression and COPD.

Stage two of the search included medical subject headings ("Delivery of Health Care, Integrated" [Mesh]) and selected chronic conditions: "Pulmonary Disease, Chronic Obstructive", "Diabetes Mellitus", "Obesity", "Depression" limiting the search strategy to "Comparative Effectiveness Research" [Mesh], "Treatment Outcome" [Mesh] or "Program Evaluation" [Mesh]). The inclusion criteria were: articles not older than 10 years, full text available and English language. The exclusion criteria were all those that did not comply with the inclusion criteria, studies not using specific research tools to assess the effect or did not assess IC and studies evaluating pharmaceutical and/or surgical procedures. Protocols of currently planned studies were enrolled in the analysis.

It resulted in identifying 173 articles. Full-text screening resulted in excluding 100 papers based on inclusion and exclusion criteria. Among the remaining 73 articles, 23 considered COPD, 40 diabetes or obesity and 10 depression.

For each of the identified studies, general characteristics and data on elements used in IC were extracted. The analysis included only those articles in which authors indicated specified outcome measures for assessment of clinical end-point, PROMs and/or PREMs or utilization of healthcare resources. The frequency of using patient-reported outcomes measures and experiences (divided into the following groups: generic, disease-specific, condition/dimension-specific) was analyzed in relation to the country, year and type of disease.

#### 3. Results

#### 3.1. General Characteristics of the Studies

The search identified 73 studies from the years 2009–2019 that were eligible for the analysis. This search enrolled a total of over 93.391 thousand patients. The median number of patients within the study group was 263 (ranging from 20 to 17.142). Most of the studies were original studies on the evaluation of integrated care models, and the newest studies (mostly from the years 2017–2019) also studied protocols planned for realization. The eligible studies described models of IC offering various forms of support for patients, usually more than one (85%) (Tables 1 and 2).

Table 1. Elements of integrated care.

Elements of IC	Ν	Percent
Education (incl. education for staff members), self-management, support after discharge	56	76.7
Community-based or home-based care, also a hospital community-based type of care	35	47.9
Support of additional specialists, multispecialty team	35	47.9
Treatment or action plan, treatment coordination, adherence	35	47.9
Others (for example, IT services, home oxygen service, smoking cessation)	33	45.2
Pulmonary rehabilitation	12	52.2 *
* of studies dealing with COPD		

\* of studies dealing with COPD.

Tabl	le 2.	Total	number	of	assessed	outcomes	[19-	90	].
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Total Number of Instruments Used	Ν	Percent
<5	21	28.8
6 to 10	26	35.6
11 to 15	13	17.8
15 to 20	2	2.7
>20	5	6.8
n/a	6	8.2
Total	73	100.0

#### 3.2. Outcomes Measures Used in Studies

The assessment of care was reported in all studies, but not all of them used PROMs or PREMs for assessing effectiveness (54.8% used at least one PROM or PREM). The most common approach was to analyze from 6 to 10 different outcomes.

#### 3.3. PROMs and PREMs in Evaluation of IC

PROMs or PREMs were reported in 39 studies, in 24 of which outcomes were described with PROMs, in 11 both PROMs and PREMs and in 4 with exclusive use of PREMs. Specific (disease or condition/dimension) outcomes were reported more often than general (22 vs. 8). The most commonly used PROM was the Medical Research Council scale (mMRC) and St. George's Respiratory Questionnaire (SGRQ) (both N = 8). For details see Table 3.

					PROMS		PREMS			
Author Year (First)	Year	Country (ISO 3166-1)	Population	Disease	G	eneric	Disaasa	Condition or Dimension Specific	Generic	Disease or
			1 of marion		HRQoL	Other than HRQoL	Specific			Condition Specific
Afolabi	2013	GBR	199	COPD			CRQ			
[19]	2015	ODIX	177				CAT			
							CAT			
Carron [22]	2017	CHE	57	COPD	SF-36		Number of COPD exacerbations reported by patients CRQ	mMRC		PACIC
							SEM-CD			
Henoch [23]	2016	CHE	7810	COPD		Exercise capacity (Likert scale)	CCQ	mMRC		
Davis [24]	2016	CAN	140	COPD		MMAS-8	SGRQ			
Esteban	2016	ECD	110			LINDS	SGRQ	mMPC		
[25]	2016	ESF	119	COPD		HAD5	LCADL	mivike		
									CTM-3	
Gillis [26]	2017	CAN	174	COPD					Expectations (single open-ended question)	
									"Helpfulness" of care (Likert scale)	
Garner [27]	2017	GBR	n/a	COPD			CAT		Place of death	
Hernandez [28]	2015	ESP	155	COPD		HADS	-	mMRC		
Hogg [29]	2012	GBR	1114	COPD		HADS		CRO-SR		
001 1							CSES	~		
Jarab [31]	2012	JOR	106	COPD			SGRQ			
Ko [32]	2014	HKG	185	COPD			SGRQ	mMRC		
Ko [33]	2017	HKG	180	COPD			SGRQ	mMRC		
						PAM	CCQ			CQIAC
										CSPAM
Koolen [34]	2018	NLD	n/a	COPD		MSO	NCSI			PCRS
						MBQ	INCSI			CPSET
										PACIC
Kruis [35]	2014	NLD	1086	COPD	EQ-5L	IPAQ	CCQ	mMRC		PACIC
					SF-36	SMAS-30	SGRQ			
Kruis [36]	2010	NLD	1086	COPD	EQ-5L	IPAQ	CCQ	mMRC		PACIC
					SF-36	SMAS-30	SGRQ			
Pinnock							SGRQ			
[38]	2013	GBR	128	COPD		HADS	SECD-6			
	<b>e</b> ot=	205					LINQ			D: 075
Wu [40]	2015	SGP	62	Dist			CAT			PACIC
Aponte [41]	2017	USA	180	Obes			DKQ			

### Table 3. Main characteristics reporting PROMs and PREMs in evaluation of integrated care.

					PROMS		PREMS			
Author	Year	Country (ISO	Population	Disease	Ge	eneric	Disease	Condition or		Disease or
(First)	icui	3166-1)		Discuse	HRQoL	Other than HRQoL	Specific	Dimension Specific	Generic	Condition Specific
Beauregard [43]	2018	CAN	1185	Diab and Obes		Enquête québécoise sur l'activité physique et la santé				
Chwastiak [46]	2017	USA	151	Diab and Obes			PHQ-9			
Ciccone [47]	2010	ITA	1160	Diab and Obes	SF-12					
Fottrell [49]	2016	BGD		Diab and Obes	EQ-5L		SRQ			
Gucciardi [50]	2012	CAN	1200	Diab and Obes					Patients' experiences and views (in-depth interviews)	
Husted [54]	2014	DNK	71	Diab and Obes		TSRQ-21 WHO5	PCD		HCCQ	PAID-20
Jansink [55]	2013	NLD	940	Diab and Obes	VAS scale					
Vermunt [68]	2012	NLD	925	Diab and Obes					Satisfaction about program (Likert scale)	
Zhang [72]	2013	AUS	456	Diab and Obes	SF-12	HADS SMAS-30	DQoL-brief		CSQ-8	
van Eeghen [75]	2018	USA	20	Diab and Obes			PHQ-9		Satisfaction about program (Likert scale)	
Hoffman [77]	2018	USA	97	Diab and Obes	Sizing Me Up	FFQ IPAQ PMI PAQ				
Wake [80]	2012	AUS	120	Diab and Obes	PedsQL	PCSC	BPQ			
Unützer [82]	2012	USA	7977	Dep			PHQ-9			
Hepner [83]	2011	USA	113	Dep					Satisfaction about program (Likert scale)	
Murphy [84]	2017	VNM	n/a	Dep		WHODAS .	SRQ-20 CAGE	-		
					EQ-5L	WSAS	BDI-II	PSS		
Poulsen	2017	DATZ	n/2	Dep		IPQ	BAI	KES	്റേം	
[85]	2017	DINK	n/a	Dep	Flanagan QOLS	GSS	4DSQ	RTW-SE SPS	0	
						HeiQ			C.	
Salisbury	2016	GBR	609	Dep	EQ-5L	MMAS-8	PHQ-9	GAD-7	Care coordination	
[86]				1.		eHEALs			(Haggerty)	
							PHQ-9	GAD-7		
Sanchez	2017	USA	11895	Dep		PAQ	DKM	SCMHC		
[07]							SD	LSAS		

#### Table 3. Cont.

PROMS PREMS Country Author Generic Condition or Disease or Population Year (ISO Disease Disease (First) Dimension Generic Condition 3166-1) Other than Specific HRQoL Specific Specific HROoL Quality Von Korff of life WHODAS 2011 USA SDS 214 Dep SLC-20 [88] (Likert scale) PHQ-9 Wagner Dep 2014 USA n/a [89] MOS-HIV Satisfaction about 2014 USA SF-12 PHO-9 SDS Wu [90] 964 Dep program (Likert scale)

Abbreviations: AUS—Australia; BAI—Beck Anxiety Inventory; BDI-II—Beck Depression Inventory-II; BGD— Bangladesh; BPQ—Body figure perception questionnaire; CAGE—Cut-down, Annoyed, Guilty, Eye-opener Questionnaire; CAN-Canada; CAT-COPD assessment test; CCQ-Clinical COPD Questionnaire; CHE-Switzerland; CPSET—Care Process Self Evaluation Tool; CQIAC—Consumer Quality Index Asthma and COPD; CRQ-Chronic Respiratory Diseases Questionnaire; CRQ-SR-Chronic Respiratory Questionnaire self-report dyspnea scale; CSES—COPD Self-Efficacy Scale; CSPAM—Clinician Support for Patient Activation Measure; CSQ-8—Client Satisfaction Questionnaire; CTM-3—Care Transitions Measure-3; Dep-depression; Diab and Obes-diabetes and obesity; DKM-Depression Knowledge Measure; DKQ-Diabetes Knowledge Questionnaire; DNK—Denmark; DQoL-brief—Diabetes Quality of Life Scale; eHEALs—eHealth Literacy Scale; 4DSQ—Four-Dimensional Symptom Questionnaire; EQ-5L-Euro Qol-5D-5L; ESP-Spain; FFQ-Food Frequency Questionnaire; GAD-7-Generalized anxiety; GBR-United Kingdom; GSS-General Self-Efficacy Scale; HADS-Hospital Anxiety and Depression Scale; HCCQ—Health Care Climate Questionnaire; HeiQ—Health Education Impact Questionnaire; HKG-Hong Kong; IADL-Lawton Instrumental Activities of Daily Living Scale; IPAQ-International Physical Activity Questionnaire; IPQ--Illness Perception Questionnaire; ITA--Italy; JOR--Jordan; -Karolinska Exhaustion Scale; LCADL—London Chest Activity of Daily Living; LINQ—Lung information needs questionnaire; LSAS—Latino Scale for Antidepressant Stigma; MMAS-8—Morisky Medication Adherence Scale; mMRC-Medical Research Council scale; MOS-HIV-Medical Outcomes Study HIV Health Survey; MOS-HIV-Medical Outcomes Study HIV Health Survey; MSQ-Marshall Sitting Questionnaire; NCSI-Nijmegen Clinical Screening Instrument; NLD-Netherlands; PACIC-Patient Assessment of Chronic Illness Care Questionnaire; PAID-20- Problem Areas In Diabetes (20 item); PAM-Patient Activation Measure; PAQ-Patient Adherence Questionnaire; PAQ-Patient Adherence Questionnaire; PCD-Perceived Competence in Diabetes Scale; PCRS—Primary Care Recourses and Supports for Chronic Disease Self-Management; PCSC—Harter's perceived Competence scale for Children; PedsQL—Pediatric Enuresis Module to Assess Quality of Life; PHQ-9—Patient Health Questionnaire-9); PMI-Parent Motivation Inventory; PSS-Perceived Stress Scale; RTW-SE-Return to Work Self-Efficacy; SCMHC-Stigma Concerns about Mental Health Care; SD-Social Distance Scale; SDQ-Strengths and difficulties Questionnaire; SDS—Sheehan Disability Scale; SECD-6—Self-efficacy for managing chronic disease 6 item scale; SEM-CD -Self-Efficacy for Managing Chronic Disease 6-Item Scale; SF-12-Short Form Health Survey; SF-36—Short Form 36; SGP—Singapore; SLC-20—20-item Symptom Checklist Depression Scale; SMAS-30-Self-Management Ability Scale-30; SPS-Stanford Presenteeism Scale); SRQ-20-Self-Reporting Questionnaire; TSRQ -21-21-item Treatment Self-Regulation Questionnaire; USA-United States of America; WHO5-World Health Organization-5 scale; WHODAS-World Health Organization Disability Assessment; WSAS-Work and Social Adjustment Scale.

As shown in Figure 2, PROMs and PREMs were most commonly used in studies from the USA, followed by the Netherlands. In ten studies from the USA, twelve different tools were used to assess patients' outcomes or experiences, out of which PHQ-9 was the most popular (N = 7). In six studies from the Netherlands, eight different tools were used—most often CCQ (N = 5). All types of patient-reported indicators were present in studies from Denmark and the Netherlands.

As shown in Figure 3, the first studies using specified questionnaires for assessing PROMs and PREMs were published within the analyzed period of time in 2010, and these two studies used only condition- or dimension-specific PROMs. The highest number of PROMs and PREMs was noted in 2017, mostly due to the widespread use of disease-specific PROMs.

As shown in Figure 4, all types of PROMs and PREMs were reported as measures only in studies dealing with COPD. Likewise, PROMS were used most frequently in the assessment of IC dedicated to this disease (18 of 23 studies, 78.2%). Studies related to depression did not mention specific PREMs, and those related to diabetes did not use specific PREMs nor condition/dimension PROMs.

Table 3. Cont.



Figure 2. Number of PROMs and PREMs used in studies by country.



Figure 3. Number of PROMs and PREMS in studies by year of publication.





#### 4. Discussion

Reliable assessment of care, including integrated care, requires a multi-criterial approach. There is an increased interest in using the information provided by patients considering their health and experience related to healthcare [91,92]. Contemporary understanding of healthcare goes far beyond just providing health services. It is increasingly indicated that the health system must be designed to achieve health goals that are important to patients [91,93,94], which requires using PROMs and PREMs. The presented article can be considered a compendium of knowledge about the available indicators and the desired direction of further research aimed at the improvement of the effectiveness of integrated care. It identifies areas where research activities are particularly needed, which can be an inspiration for further research. It also allows you to familiarize yourself with a wide range of PROMs and PREMS questionnaires, indicating the added value of their use in healthcare management without overlooking them [12]. It is clear that various integrated care programs have been and are being evaluated in terms of clinical and economic effectiveness for many years, and the effectiveness of such interventions in these aspects has been repeatedly demonstrated [95–97]. However, the presented overview of practice in the assessment of IC indicates a different approach to this aspect, directing attention to the perspective and subjective feelings of patients, which resulted in some interesting observations. First of all, using PROMs is more popular than using PREMs. The use of patient-reported data is diverse both in terms of the type of disease and the country in which the research is carried out. According to the results of the presented overview, using PROMs and PREMs is most popular in the USA and Netherlands. In the United States, work has been ongoing since 2017 to incorporate additional incentive payments into the Medicare system to achieve desired health goals [98]. In 2004 USA initiated PROMIS (Patient-Reported Outcome Measurement Information System) to improve standards of data collection [99]. The Netherlands is commonly considered a European leader in national registry collection. Some registries include PROMs—for example National Quality Registry for Parkinson's disease or the low back pain registry. Back in 2007, the country used for the first time value-based payments and introduced a successful bundled system payment for COPD and type-2 diabetes, which included PROMs [8]. Moreover, OECD undertakes numerous initiatives in this subject; for example, it is monitoring the collection of PREMs data in member countries [100]. Based on available data, disease-specific PROMs seem to give the broadest and most specific information on the condition of health of patients (both physiological and psychological) and combine the positive features of generic and state-specific indicators—on the one hand, relative versatility, and on the other, sufficient accuracy [101,102]. According to the presented overview, disease-specific PROMs are most commonly used—especially in the assessment of IC dedicated to COPD and depression. This is due to the availability of recognized research tools such as CAT or SGRQ in COPD or PHQ-9 in depression. PREMs were used less frequently, and the history of their usage is shorter, especially as a condition-specific tool [103] and in specific groups of patients; for example, children. The most significant limitation of the publication is a potential bias resulting from a limited to 10 years period in which eligible articles were published and the inclusion of only full-text articles indexed by PubMed. By deciding on such a research method, it is impossible to determine whether unpublished studies have adopted another form of reporting PROMs and PREMs. However, it seems that the analysis of nearly 7.000 publications allows for an overview of contemporary reporting practice outcomes measures reported by patients. Available studies seem to prove there is a correlation between experience and the effectiveness of procedures [104,105]. Nevertheless, PREMs should be collected and analyzed together with PROMs as some disparities might occur depending on clinical outcomes [7,106].

#### 5. Conclusions

Using outcomes measures reported by patients remaining under the support of integrated care is varied, both due to the place of research and the type of disease. Interest in these indicators seems to be increasing, especially over the last few years. Nevertheless, it seems necessary to continue work on building research tools for reliable data acquisition, especially in the field of specific PREMs.

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#### References

- 1. EUnetHTA. Endpoints Used for Relative Effectiveness Assessment of Pharmaceuticals: Clinical Endpoints. Available online: https://www.eunethta.eu/wp-content/uploads/2018/01/Clinical-endpoints.pdf2015 (accessed on 30 April 2021).
- Field, J.; Holmes, M.M.; Newell, D. PROMs data: Can it be used to make decisions for individual patients? A narrative review. Patient Relat. Outcome Meas. 2019, 10, 233–241. [CrossRef] [PubMed]
- Organisation for Economic Co-Operation and Development. Measuring What Matters: The Patient-Reported Indicator Surveys. Available online: https://www.oecd.org/health/health-systems/Measuring-what-matters-the-Patient-Reported-Indicator-Surveys.pdf2019 (accessed on 14 December 2022).
- 4. Goodwin, N. Understanding Integrated Care. Int. J. Integr. Care 2016, 16, 6. [CrossRef] [PubMed]
- Contandriapoulos, A.P.; Denis, J.L.; Touati, N.; Rodriguez, C. The integration of health care: Dimensions and implementation. In Groupe de Recherche Interdisciplinaire en Santé; Working Paper N04–01; Université de Montréal: Montréal, QC, Canada, 2003.
- 6. Lemmens, L.C.; Molema, C.C.; Versnel, N.; Baan, C.A.; de Bruin, S.R. Integrated care programs for patients with psychological comorbidity: A systematic review and meta-analysis. *J. Psychosom. Res.* **2015**, *79*, 580–594. [CrossRef] [PubMed]
- Weldring, T.; Smith, S.M. Patient-Reported Outcomes (PROs) and Patient-Reported Outcome Measures (PROMs). *Health Serv. Insights* 2013, 6, 61–68.
- Williams, K.; Sansoni, J.; Morris, D.; Grootemaat, P.; Thompson, C. Patient-reported outcome measures. Literature review. *Aust. Comm. Saf. Qual. Health Care* 2016. Available online: https://www.safetyandquality.gov.au/sites/default/files/migrated/ PROMs-Literature-Review-December-2016.pdf (accessed on 1 December 2022).
- Desomer, A.; van den Heede, K.; Triemstra, M.; Paget, J.; De Boer, R.; Kohn, L.; Cleemput, I. Use of Patient-Reported Outcome and Experience Measures in Patient Care and Policy–Short report. Health Services Research (HSR) Brussels: Belgian Health Care Knowledge Centre (KCE). 2018. Available online: https://kce.fgov.be/en/use-of-patient-reported-outcome-and-experiencemeasures-in-patient-care-and-policy (accessed on 15 April 2021).
- 10. Fitzpatrick, R.; Davey, C.; Buxton, M.; Jones, D. Evaluating patient-based outcome measures for use in clinical trials. *Health Technol. Asses.* **1998**, *14*, 74. [CrossRef]
- 11. Doyle, C.; Lennox, L.; Bell, D. A systematic review of evidenceon the links between patient experienceand clinical safety and effectiveness. *BMJ Open* **2013**, *3*, 21–29. [CrossRef]
- 12. Bandurska, E.; Ciećko, W.; Zarzeczna-Baran, M. Wykorzystanie wskaźników efektywności pochodzących od pacjentów w opiece zdrowotnej. [Use of patient-reported outcomes measures in healthcare]. *Bezpieczeństwo Pacjentów I Pers. Med.* 2019, *3*, 226–231.
- 13. Valderas, J.M.; Kotzeva, A.; Espallargues, M.; Guyatt, G.; Ferrans, C.; Halyard, M.Y.; Revicki, D.A.; Symonds, T.; Parada, A.; Alonso, J.; et al. The impact of measuring patient-reported outcomes in clinical practice: A systematic review of the literature. *Qual. Life Res.* **2008**, *17*, 179–193. [CrossRef]
- 14. Griggs, C.; Schneider, J.; Kazis, L.; Ryan, C. Patient-reported outcome measures a stethoscope for the patient history. *Ann. Surg.* **2017**, *265*, 1066–1067. [CrossRef]
- 15. Steuten, L.; Vrijhoef, B.; Severens, H.; van Merode, F.; Spreeuwenberg, C. Are we measuring what matters in health technology assessment of disease management? Systematic literature review. *Int. J. Technol. Assess* **2006**, *22*, 47–57. [CrossRef] [PubMed]
- 16. Rodriguez-Gutierrez, R.; McCoy, R. Measuring What Matters in Diabetes. *JAMA* 2019, 21, 1865–1866. [CrossRef] [PubMed]
- 17. Greenhalgh, J.; Meadows, K. The effectiveness of the use of patient-based measures of health in routine practice in improving the process and outcomes of patient care: A literature review. *J. Eval. Clin. Pr.* **1999**, *5*, 401–416. [CrossRef] [PubMed]
- 18. Solberg, L.; Asche, S.; Butler, J.; Carrell, D.; Norton, C.; Jarvik, J.; Smith-Bindman, R.; Tillema, J.; Whi, R. It Is Time to Ask Patients What Outcomes Are Important to Them. *Am. J. Acc. Care* **2015**, *4*, 48–54.
- Afolabi, G.; Stevens, R.; Turner, M.; Harvey, M.; Norman, L.; Dogan, S.; Gray, W. Development of a Pulmonary Rehabilitation Service for People With COPD. A tiered model of integrated care. *J. Cardiopulm. Rehabil. Prev.* 2013, 13, 323–327. [CrossRef] [PubMed]
- Alshabanat, A.; Otterstatter, M.; Sin, D.; Rempel, C.; van Eeden, S.; FitzGerald, J. Impact of a COPD comprehensive case management program on hospital length of stay and readmission rates. *Int. J. Chronic Obstr. Pulm. Dis.* 2017, 21, 961–971. [CrossRef] [PubMed]
- Balaban, R.; Zhang, F.; Vialle-Valentin, C.; Galbraith, A.; Burns, M.; Larochelle, M.; Ross-Degan, D. Impact of a Patient Navigator Program on Hospital-Based and Outpatient Utilization Over 180 Days in a Safety-Net Health System. *J. Gen. Intern. Med.* 2017, 32, 981–989. [CrossRef]

- 22. Carron, T.; Bridevaux, P.; Lörvall, K.; Parmentier, R.; Moix, J.; Beytrison, V.; Pernet, R.; Rey, C.; Roberfroid, P.; Chhajed, P.; et al. Feasibility, acceptability and effectiven ess of integrated care for COPD patients: A mixed methods evaluation of a pilot community-based programme. *Swiss Med. Wkly.* **2017**, *147*, w14567.
- 23. Henoch, I.; Strang, S.; Löfdahl, C.; Ekberg-Jansson, A. Management of COPD, equal treatment across age, gender, and social situation? A register study. *Int. J. Chronic Obs.* 2016, *11*, 2681–2690. [CrossRef]
- Davis, E.; Marra, C.; Gamble, J.; Farrell, J.; Lockyer, J.; FitzGerald, M.; Abu-Ashour, W.; Gillis, C.; Hawboldt, J. Effectiveness of a pharmacist-driven intervention in COPD (EPIC): Study protocol for a randomized controlled trial. *Trials* 2016, 17, 1–8. [CrossRef]
- Esteban, C.; Moraza, J.; Iriberri, M.; Aguirre, U.; Goiria, B.; Quintana, J.; Aburto, M.; Capelastegiu, A. Outcomes of a telemonitoringbased program (telEPOC) in frequently hospitalized COPD patients. *Int. J. Chronic Obstr.* 2016, *11*, 2919–2930. [CrossRef] [PubMed]
- 26. Gillis, D.; Demmons, J.; Rocker, G. Expanding the INSPIRED COPD Outreach Program<sup>™</sup> to the emergency department: A feasibility assessment. *Int. J. Chronic Obstr. Pulm. Dis.* **2017**, *12*, 1597–1604. [CrossRef] [PubMed]
- 27. Garner, A.; Hodson, M.; Ketsetzis, G.; Pulle, L.; Yorek, J.; Bhowmik, A. An analysis of the economic and patient o utcome impact of an integrated COPD service in east London. *Int. J. Chronic Obstr. Pulm. Dis.* **2017**, *12*, 1653–1662. [CrossRef] [PubMed]
- Hernandez, C.; Alonso, A.; Garcia-Aymerich, J.; Serra, I.; Marti, D.; Rodriguez-Roisin, R.; Narsavage, G.; Gomez, M.; Roca, J. Effectiveness of community-based integrated care in frail COPD patients: A randomised controlled trial. *Int. J. Chronic Obstr. Pulm. Dis.* 2015, 25, 1–6. [CrossRef]
- Hogg, L.; Garrod, R.; Thorton, H.; McDonnell, L.; Bellas, H.; White, P. Effectiveness, Attendance, and Completion of an Integrated, System-Wide Pulmonary Rehabilitation Service for COPD: Prospective Observational Study. *COPD: J. Chronic Obstr. Pulm. Dis.* 2012, 9, 546–554. [CrossRef]
- Jain, V.; Allison, R.; Beck, S.; Jain, R.; Mills, P.; McCurley, S. Van Gundy, K.; Peterson, M. Impact of an integrated disease management program in reducing exacerbations in patients with severe asthma and COPD. *Respir. Med.* 2014, 108, 1794–1800. [CrossRef]
- Jarab, A.; AlQudah, S.; Khdour, M.; Shamssain, M.; Mukattash, T. Impact of pharmaceutical care on health outcomes in pati ents with COPD. Int. J. Clin. Pharm. 2012, 34, 53–62. [CrossRef]
- 32. Ko, F.; Ngai, J.; Ng, S.; Chang, K.; Cheung, R.; Leung, M.; Pun, M.; Hui, D. COPD care programme can reduce readmissions and in-patient bed days. *Respir. Med.* 2014, 108, 1771–1778. [CrossRef]
- 33. Ko, F.; Cheung, R.; Rainer, T.; Lum, C.; Wong, I.; Hui, D. Comprehensive care programme for patients with chronic obstructive pulmonary disease:a randomised controlled trial. *Thorax* **2017**, *72*, 122–128. [CrossRef]
- 34. Koolen, E.; van der Wees, G.; Dekhuijzen, R.; Heijdra, Y.; van Hul, A. Evaluation of the COPDnet integrated care model in patients with COPD: The study protocol. *Int. J. Chronic Obstr. Pulm. Dis.* **2018**, *13*, 2237–2244. [CrossRef]
- 35. Kruis, A.; Boland, M.; Assendelft, W.; Gussekloo, J.; Tsiachristas, A.; Stijnen, T.; Blom, C.; Sont, J.; Rutten-van Mölken, M.; Chavannes, N. Effectiveness of integrated disease management for primary care chronic obstructive pulmonary disease patients: Results of cluster randomised trial. *BMJ* 2014, 349, g5392. [CrossRef] [PubMed]
- 36. Kruis, A.; von Adrichem, J.; Erkelens, M.; Scheepers, H.; Veen, H.; Muris, J.; Chavannes, N. Sustained effects of integrated COPD management on health status and exercise capacity in primary care patients. *Int. J. Chronic Obstr. Pulm. Dis.* **2010**, *5*, 407–413.
- Luk, E.; Hutchinson, A.; Tacey, M.; Irving, L.; Khan, F. COPD: Health Care Utilisation Patterns with Different Disease Management Interventions. *Lung* 2017, 195, 455–461. [CrossRef] [PubMed]
- 38. Pinnock, H.; Hanley, J.; McCloughan, L.; Todd, A.; Krishan, A.; Lewis, S.; Stoddart, A.; van del Pol, M.; MacNee, A.; Sheikh, A.; et al. Effectiveness of telemonitoring integrated into existing clinical services on hospital admission for exacerbation of chronic obstructive pulmonary disease: Researcher blind, multicentre, randomised controlled trial. *BMJ* 2013, 347, f6070. [CrossRef]
- 39. Titova, E.; Steinshamn, S.; Indredavik, B.; Henriksen, A. Long term effects of an integrated care intervention on hospital utilization in patients with severe COPD: A single centre controlled study. *Respir. Res.* **2015**, *16*, 1–10. [CrossRef]
- Wu, C.; Tan, W.; See, R.; Yu, W.; Kwek, L.; Toh, M.; Chee, T.; Chua, S. A matched-group study protocol to evaluate the implementation of an Integrated Care Pathway programme for chronic obstructive pulmonary disease in Singapore. *BMJ Open* 2015, 5, e005655. [CrossRef]
- Aponte, J.; Jackson, T.; Wyka, K.; Ikechi, C. Health effectiveness of community health workers as a diabetes self-management intervention. *Diabetes Vasc. Dis. Res.* 2017, 14, 316–326. [CrossRef]
- Barcelo, A.; Cafiero, E.; de Boer, M.; Mesa, A.; Lopez, M.; Jimenez, R.; Esqueda, A.; Martinez, J.; Holgiun, E.; Meiners, M.; et al. Using collaborative learning to improve diabetes care and outcomes: The VIDA project. *Prim. Care Diabetes* 2010, *4*, 145–153. [CrossRef]
- 43. Beauregard, M.; Provost, S.; Pineault, R.; Grimard, D.; Perez, J.; Fournier, M. Effects on patients of variations in the implementation of a cardiometabolic risk intervention program in Montréal. *Health Promot. Chronic Dis. Prev. Can. Res.* 2018, 2, 64–77. [CrossRef]
- Benedict, A.; Spence, M.; Sie, J.; Chin, H.; Ngo, C.; Salmingo, J.; Vidaurreta, A.; Rashid, N. Evaluation of a Pharmacist-Managed Diabetes Program in a Primary Care Setting Within an Integrated Health Care System. *J. Manag. Care Spec. Pharm.* 2018, 24, 114–122. [CrossRef]
- Chen, S.; Hou, X.; Sun, Y.; Hu, G.; Zhou, X.; Xue, H.; Chen, P.; Wu, J.; Bao, Y.; Jia, W. A seven-year study on an integrated hospital-community diabetes management program in Chinese patients with diabetes. *Prim. Care Diabetes* 2018, 12, 231–237. [CrossRef] [PubMed]

- Chwastiak, J.; Jackson, S.; Russo, J.; Kiefer, M.; Belyeu, B.; Mertens, K.; Chew, L.; Lin, E. A collaborative care team to integrate behavioral health care and treatment of poorly-controlled type 2 diabetes in an urban safety net primary care clinic. *Gen. Hosp. Psychiatry* 2017, 44, 10–15. [CrossRef] [PubMed]
- Ciccone, M.; Aquilino, A.; Cortese, F.; Scicchitano, P.; Sassara, P.; Mola, E.; Rollo, R.; Caldarola, P.; Giorgino, F.; Pomo, V.; et al. Feasibility and effectiveness of a disease and care management model in the primary health care system for patients with heart failure and diabetes (Project Leonardo). *Vasc. Health Risk Manag.* 2010, *6*, 297–305. [CrossRef] [PubMed]
- da Silva Marinhoa, M.; Fontbonneb, A.; Mary, J.; Barbosaa, V.; de Melo Rodriguesc, H.; de Carvalhoa, E.; de Souza, W.V.; Cesse, E.A. The impact of an intervention to improve diabetes management in primary healthcare professionals' practices in Brazil. *Prim. Care Diabetes* 2017, *11*, 538–545. [CrossRef] [PubMed]
- 49. Fottrell, E.; Jennings, H.; Kuddus, A.; Ahmed, N.; Morrison, J.; Akter, K.; Shaha, S.; Nahar, B.; Nahar, T.; Haghparast-Bidgoli, H.; et al. The effect of community groups and mobile phone messages on the prevention and control of diabetes in rural Bangladesh: Study protocol for a three-arm cluster randomised controlled trial. *Trials* 2016, 17, 1–15. [CrossRef] [PubMed]
- Gucciardi, E.; Fortugno, M.; Horodezny, S.; Lou, W.; Sidani, S.; Espin, S.; Webster, F.; Shah, B. Will Mobile Diabetes Education Teams (MDETs) in primary care improve patient care processes and health outcomes? Study pprotocol for a randomized controlled trial. *Trials* 2012, 13, 1–10. [CrossRef]
- Harris, M.; Breaves, F.; Patterson, S.; Jones, J.; Pappas, Y.; Majeed, A.; Car, J. The North West London Integrated Care Pilot Innovative Stategies to Improve Care Coordination for Older Adults and People With Diabetes. J. Ambul. Care Manag. 2012, 35, 216–225. [CrossRef]
- 52. Huckfeldt, P.; Meeker, D.; Peters, A.; Guterman, J.; Diaz, G.; Goldman, D. Diabetes Management for Low-Income Patients In Los Angeles: Two Strategies Improved Disease Control In The Short Term. *Health Aff.* **2012**, *31*, 168–176. [CrossRef]
- 53. Huque, R.; Nasreen, S.; Ahmed, F.; Hicks, J.; Walley, J.; Newell, J.; Elsey, H. Integrating a diabetes and hypertension case management package within primary health care: A mixed methods feasibility study in Bangladesh. *BMC Health Serv. Res.* **2018**, *18*, 1–10. [CrossRef]
- 54. Husted, G.; Thorsteinsson, B.; Esbensen, B.; Gluud, C.; Winkel, P.; Hommel, E.; Elsey, H. Effect of guided self-determination youth intervention integrated into outpatient visits versus treatment as usual on glycemic control and life skills: A randomized clinical trial in adolescents with type 1 diabetes. *Trials* 2014, 15, 1–12. [CrossRef]
- Jansink, R.; Braspenning, J.; Keizer, E.; Van der Weijden, T.; Elwyn, G.; Grol, R. No identifiable Hb1Ac or lifestyle chang e after a comprehensive diabetes programme including motivational interviewing: A cluster randomised trial. *Scand. J. Prim. Health* 2013, 31, 119–127. [CrossRef] [PubMed]
- Katz, I.; Pirabhahar, S.; Williamson, P.; Raghunath, V.; Brennan, F.; O'Sullivan, A.; Youssef, G.; Lane, C.; Jacobson, G.; Feldman, P.; et al. Connect CKD-virtual medical consulting: A web-based chronic kidney disease, hypertension and diabetes integrated care program. *Nephrology* 2018, 23, 646–652. [CrossRef] [PubMed]
- 57. Kornelius, E.; Chiou, J.; Yang, Y.; Lu, Y.; Peng, C.; Huang, C. The Diabetes Shared Care Program and Risks of Cardiovascular Events in Type 2 Diabetes. *Am. J. Med.* **2015**, *128*, 977–985. [CrossRef] [PubMed]
- Ku, G.; Kegels, G. Integrating chronic care with primary care activities: Enriching healthcare staff knowledge and skills and improving glycemic control of a cohort of people with diabetes through the First Line Diabetes Care Project in the Philippines. *Glob. Health Action* 2014, 7, 25286. [CrossRef] [PubMed]
- 59. Labhardt, N.; Balo, J.; Ndam, M. Task shifting to non-physician clinicians for integrated management of hypertension and diabetes in rural Cameroon: A programme assessment at two years. *BMC Health Serv. Res.* **2010**, *10*, 1–10. [CrossRef] [PubMed]
- 60. Liddy, C.; Johnston, S.; Nash, K.; Ward, N.; Irving, H. Health coaching in primary care: A feasibility model for diabetes care. *BMC Prim. Care* **2014**, *15*, 1–8. [CrossRef]
- Lien, A.; Jiang, Y.; Mou, C.; Sun, M.; Gau, B.; Yen, H. Integrative traditional Chinese medicine therapy reduces the risk of diabetic ketoacidosis in patients with type 1 diabetes mellitus. *J. Ethnopharmacol.* 2016, 191, 324–330. [CrossRef]
- 62. MacRury, S.; Stephen, K.; Main, F.; Gorman, J.; Jones, S.; Macfarlane, D. Reducing Amputations in People with Diabetes (RAPID): Evaluation of a New Care Pathway. *Int. J. Environ. Res. Public Health* **2018**, *15*, 999. [CrossRef]
- 63. Newlyn, N.; MaGrath, R.; Fulcher, G. Evaluation of the performance and outcomes for the first year of a diabetes rapid access clinic. *Med. J. Aust.* **2016**, 205, 172. [CrossRef]
- Salant, T.; Slavin, S.; Baumrin, E.; Bordeu, M.; Rowley, M.; Brackett, E.; Severin, P.; Behforouz, H. Lessons in Translation Insights From a Collaboration Integrating Community Health Workers Into Diabetes Care. J. Ambul. Care Manag. 2013, 36, 156–165. [CrossRef]
- Seidu, S.; Bodicoat, D.; Davies, M.; Daly, H.; Stribling, B.; Farooqi, A.; Brady, E.; Khunti, K. Evaluating the impact of an enhanced primary care diabetes service on diabetes outcomes: A before–after study. *Prim. Care Diabetes* 2017, *11*, 171–177. [CrossRef] [PubMed]
- Turnacilar, M.; Sancar, M.; Apikoglu-Rabus, S.; Hursitoglu, M.; Izzettin, F. Improvement of diabetes indices of care by a short pharmaceutical care program. *Pharm. World Sci.* 2009, *31*, 689–695. [CrossRef] [PubMed]
- 67. Rümenapf, G.; Geiger, S.; Schneider, B.; Amendt, K.; Wilhelm, N.; Morbach, S.; Nagel, N. Readmissions of patients with diabetes mellitus and foot ulcers after infra-popliteal bypass surgery–attacking the problem by an integrated case management model. *Vasa* **2013**, *42*, 56–57. [CrossRef] [PubMed]

- Vermunt, P.; Milder, I.; Wielaard, F.; Baan, C.; Schelfhout, J.; Westert, G.; van Oers, H. Implementation of a lifestyle intervention for type 2 diabetes prevention in Dutch primary care: Opportunities for intervention delivery. *BMC Fam. Pract.* 2012, *13*, 1–10. [CrossRef]
- 69. Walsh, J.; Harris, B.; Roberts, A. Evaluation of a community diabetes initiative: Integrating diabetes. *Prim. Care Diabetes* **2015**, *9*, 203–210. [CrossRef]
- Webb, E.; Rheeder, P. A cluster-randomized trial to estimate the effect of mobile screening and treatment feedback on HbA1c and diabetes-related complications in Tshwane primary health care clinics, South Africa. *Prim. Care Diabetes* 2017, 11, 546–554. [CrossRef]
- Yang, G.; Yuan, S.; Fu, H.; Wan, G.; Zhu, L.; Yuan, M.; Lv, Y.; Zhang, J.; Du, X.; Li, Y.; et al. Influence of educational attainments on long term glucose control and morbid events in patients with type 2 diabetes receiving integrated care from 15 China urban communities: The Beijing Community Diabetes Study 11. *Prim. Care Diabetes* 2015, *9*, 473–481. [CrossRef]
- 72. Zhang, J.; Burridge, L.; Baxter, K.; Donald, M.; Foster, M.; Hollingworth, S.; Ware, R.; Russell, A.; Lackson, C. A new model of integrated p rimary-secondary care for complex diabetes in the community: Study protocol for a randomised controlled trial. *Trials* **2013**, *14*, 1–9. [CrossRef]
- 73. Bennett, W.; Gadzune, K.; Appel, L.; Clark, J. Insights from the POWER Practice-Based Weight Loss Trial: A Focus Group Study on the PCP's Role in Weight Management. *J. Gen. Intern. Med.* **2013**, *29*, 50–58. [CrossRef]
- 74. Brunisholz, K.; Joy, E.; Hashibe, M.; Gren, L.; Savitz, L.; Hamilton, S.; Cannon, W.; Huynh, K.; Schafer, T.; Newman, L.; et al. Stepping Back to Move Forward: Evaluating the Effectiveness of a Diabetes Prevention Program Within a Large Integrated Healthcare Delivery System. *J. Healthc. Qual.* **2017**, *39*, 278–293. [CrossRef]
- 75. Van Eeghen, C.; Littenberg, B.; Kessler, R. Chronic care coordination by integrating care through a team-based, population-driven approach: A case study. *Transl. Behav. Med.* **2018**, *8*, 468–480. [CrossRef]
- Gross, S.; Augustyn, M.; Henderson, J.; Baig, K.; Williams, C.; Ajao, B.; Bell-Waddy, P.; Paige, D. Integrating Obstetrical Care and WIC Nutritional Services to Address Maternal Obesity and Postpartum Weight Retention. *Matern. Child. Health J.* 2018, 22, 794–802. [CrossRef] [PubMed]
- 77. Hoffman, J.; Frerichs, L.; Story, M.; Jones, J.; Gaskin, K.; Apple, A.; Skinner, A.; Armstrong, S. An Integrated Clinic-Community Partnership for Child Obesity Treatment: A Randomized Pilot Trial. *Pediatrics* **2018**, *141*, 1. [CrossRef]
- Johnson, M.; Jastrzab, R.; Tate, J.; Johnson, K.; Hall-Lipsy, E.; Martin, R.; Taylor, A.; Warholak, T. Evaluation of an Academic-Community Partnership to Implement MTM Services in Rural Communities to Improve Pharmaceutical Care for Patients with Diabetes and/or Hypertension. *J. Manag. Care Spec. Pharm.* 2018, 24, 132–141. [CrossRef] [PubMed]
- 79. Prestes, M.; Gayarre, M.; Elgart, J.; Gonzalez, L.; Rucci, E.; Gagliardino, J. Multistrategic approach to improve quality of care of people with diabetes at the primary care level: Study design and baseline data. *Prim. Care Diabetes* **2017**, *11*, 193–200. [CrossRef] [PubMed]
- Wake, M.; Lycett, K.; Sabin, M.; Gunn, J.; Gibbons, K.; Hutton, C.; McCallum, Z.; York, E.; Stringer, M.; Wittert, G. A shared-care model of obesity treatment for 3–10 year old children: Protocol for the HopSCOTCH randomised controlled trial. *BMC Pediatr.* 2012, 12, 1–9. [CrossRef]
- 81. Angstman, K.; Doganer, Y.; Dejesus, R.; Rohrer, J. Increased medical cost metrics for patients 50 years of age and older in the collaborate care model of treatment for depression. *Psychogeriatrics* **2016**, *16*, 102–106. [CrossRef]
- 82. Unützer, J.; Chan, Y.; Hafer, E.; Knaster, J.; Shields, A.; Powers, D.; Veith, R. Quality Improvement with Pay-for-Performance Incentives in In tegrated Behavioral Health Care. *Am. J. Public Health* **2012**, *102*, e41–e45. [CrossRef]
- 83. Hepner, K.; Hunter, S.; Paddock, S.; Zhou, A.; Watkins, K. Training Addiction Counselors to Implement CBT for Depression. *Adm. Policy Ment. Health Ment. Health Serv. Res.* 2011, *38*, 313–323. [CrossRef]
- Murphy, J.; Goldsmith, C.; Jones, W.; Oanh, P.; Nguyen, V. The effectiveness of a Supported Self-management task-shifting intervention for adult depression in Vietnam communities: Study protocol for a randomized controlled trial. *Trials* 2017, 18, 1–12. [CrossRef]
- 85. Poulsen, R.; Hoff, A.; Fisker, J.; Hjorthøj, C.; Eplov, L. Integrated mental health care and vocational rehabilitation to improve return to work rates for people on sick leave because of depression and anxiety (the Danish IBB IS trial): Study protocol for a randomized controlled trial. *Trials* **2017**, *18*, 1–15. [CrossRef]
- Salisbury, C.; O'Cathain, A.; Edwards, L.; Thomas, C.; Gaunt, D.; Hollinghurst, S.; Nicholl, J.; Large, S.; Yardley, L.; Lewis, G.; et al. Effectiveness of an integrated telehealth service for patients with depression: A pragmatic randomised controlled trial of a complex intervention. *Lancet Psychiatry* 2016, *3*, 515–525. [CrossRef] [PubMed]
- Sanchez, K.; Eghaneyan, B.; Killian, M.; Cabassa, L.; Trivedi, M. Measurement, Education and Tracking in Integrated Care (METRIC): Use of a culturally adapted education tool versus standard education to increase engagement in depression treatment among Hispanic patients: Study protocol for a randomized control trial. *Trials* 2017, 18, 1–13. [CrossRef] [PubMed]
- Von Korff, M.; Katon, W.; Lin, E.; Ciechanowski, P.; Peterson, D.; Ludman, E.; Young, B.; Rutter, C. Functional outcomes of multi-condition collaborative care and successful ageing: Results of randomised trial. *BMJ* 2014, 343. [CrossRef]
- 89. Wagner, G.; Ngo, V.; Glick, P.; Obuku, E.; Musisi, S.; Akena, D. INtegration of DEPression Treatment into HIV Care i n Uganda (INDEPTH-U ganda): Study protocol for a randomized controlled trial. *Trials* **2014**, *15*, 343. [CrossRef]
- 90. Wu, B.; Haomiao, J.; Vidyanti, I.; Lee, P.; Eli, K.; Wu, S. Collaborative Depression Care Among Latino Patients in Diabetes Disease Management, Los Angeles, 2011–2013. *Prev. Chronic Dis.* **2014**, *11*, E148. [CrossRef]

- 91. Porter, M. Value-based health care delivery. Ann. Surg. 2008, 248, 503-509. [CrossRef]
- Morris, M.; Atkinson, V.; Woods, J.; Myles, P.; Hodge, A.; Jones, C.; Lloyd, D.; Rovtar, V.; Clifford, A.; Brusco, N. Patient Judgement of Change with Elective Surgery Correlates with Patient Reported Outcomes and Quality of Life. *Healthcare* 2022, 10, 999. [CrossRef]
- 93. Gentry, S.; Badrinath, P. Defining Health in the Era of Value-based Care: Lessons from England of Relevance to Other Health Systems. *Cureus* **2017**, *9*, e1079. [CrossRef]
- 94. Zipfel, N.; van der Nat, P.; Rensing, B.; Daeter, E.; Westert, G.; Groenewoud, A. The implementation of change model adds value to value-based healthcare: A qualitative study. *BMC Health Serv. Res.* **2019**, *19*, 1–12. [CrossRef]
- 95. Baxter, S.; Johnson, M.; Chambers, D.; Sutton, A.; Goyder, E.; Booth, A. The effects of integrated care: A systematic review of UK and international evidence. *BMC Health Serv. Res.* **2018**, *18*, 1–13. [CrossRef] [PubMed]
- 96. Flanagan, S.; Damery, S.; Combes, G. The effectiveness of integrated care interventions in improving patient quality of life (QoL) for patients with chronic conditions. An overview of the systematic review evidence. *Health Qual. Life Outcomes* 2017, 15, 1–11. [CrossRef] [PubMed]
- Bandurska, E.; Damps-Konstańska, I.; Popowski, P.; Jedrzejczyk, T.; Janowiak, P.; Swietnicka, K.; Zarzeczna-Baran, M.; Jassem, E. Cost-Effectiveness Analysis of Integrated Care in Management of Advanced Chronic Obstructive Pulmonary Disease (COPD). *Med. Sci. Monit. Int. Med. J. Exp. Clin. Res.* 2019, 25, 2879–2885. [CrossRef] [PubMed]
- Lavallee, D.; Chenok, K.; Love, R.; Petersen, C.; Holve, E.; Segal, C.; Franklin, P. Incorporating Patient-Reported Outcomes into Health Care To Engage Patients And Enhance Care. *Health Aff.* 2016, 35, 575–582. [CrossRef]
- 99. De Faoite, D. The advantages of electronic patient-reported measures and an example digital platform to collect ePROs after total knee arthroplasty. *Med. Access Point Care* **2018**, 2. [CrossRef]
- OECD. Putting People at the Centre of Health Care. PaRIS Survey of Patients with Chronic Conditions. 2019. Available online: https://www.oecd.org/health/health-systems/PaRIS-survey-Patients-with-Chronic-Conditions-June-2019.pdf (accessed on 20 April 2022).
- 101. Miedany, Y. Adopting patient-centered care in standard practice: PROMs moving toward disease-specific era. *Clin. Exp. Rheumat.* **2014**, *32*, S40–S46.
- 102. Coelho, A.; de Bienassis, K.; Klazinga, N.; Santo, S.; Frade, P.; Costa, A.; Gaspar, T. Mental Health Patient-Reported Outcomes and Experiences Assessment in Portugal. *Int. J. Env. Res. Public Health* **2022**, *19*, 11153. [CrossRef]
- 103. Hodson, M.; Andrew, S.; Roberts, C. Towards an understanding of PREMs and PROMs in COPD. *Breathe* 2013, *9*, 358–364. [CrossRef]
- 104. Jayakumar, P.; Phil, D.; Teunis, T.; Vranceanu, A.; Lamb, S.; Ring, D.; Gwilym, S. Relationship Between Magnitude of Limitations and Patient Experience During Recovery from Upper-Extremity Fracture. *JB JS Open Access* 2019, *4*, 1–7. [CrossRef]
- 105. Black, N.; Varaganum, M.; Hutchings, A. Relationship between patient reported experience (PREMs) and patient reported outcomes (PROMs) in elective surgery. *BMJ Qual. Saf.* **2014**, *23*, 534–542. [CrossRef]
- 106. Kingsley, C.; Patel, S. Patient-reported outcome measures and patient-reported experience measures. *BJA Educ.* **2017**, *17*, 137–144. [CrossRef]

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