

## **Project Title**

Accessible Cancer Care to Enable Support for Cancer Survivors (ACCESS) Programme

## **Project Lead and Members**

Project lead: Dr Patricia Neo Soek Hui, Senior Consultant, Head, Division of Supportive and Palliative Care

Project members:

- Dr Alexandre Chan, Specialist Pharmacist
- Dr Loh Kiley Wei-Jen, Medical Oncology Consultant
- Dr Yang Meijuan Grace, Palliative Care Consultant
- Dr Quah Song Chiek Daniel, Radiation Oncology Consultant
- Ms Tan Yee Pin, Head, Psychosocial Oncology, Principal Social Worker/  
Psychologist
- Dr Ramalingam Mothi Babu, Rehabilitation Medicine Consultant
- Ms Si En Hui Phebe, Pharmacist
- Tan Yung Ying, Nurse Clinician
- Tay Beng Choo, Senior Nurse Clinician
- Xu Zhizhen Susan, Advanced Practice Nurse
- Zhu Xia, Advanced Practice Nurse
- Natesan Neela, Nurse Clinician
- Ke Yu, Pharmacist

## **Organisation(s) Involved**

National Cancer Centre Singapore

## **Project Period**

Start date: Sep 2019

Completed date: On-going

## **Aims**

- To construct a new holistic after-care model, incorporating medical and complementary services to manage cancer patients' needs upstream, preparing them for improved recovery in the community.
- To build a community network of after-care supportive services and upskill community partners, facilitating the transition of cancer survivors to the community.

## **Background**

See poster attached/ below

## **Methods**

See poster attached/ below

## **Results**

See poster attached/ below

## **Lessons Learnt**

Although the electronic medium is a convenient platform to collect Patient Reported Outcomes (PROs), an alternative mode should be available to prevent the systematic exclusion of patients based on literacy levels, familiarity with technology, or internet access. We trained our service staff to administer Distress Thermometer & Problem List (DTPL) via face-to-face/phone calls for this patient group.

Continual outreach efforts to update and engage the staff involved in service delivery is paramount to ensure sustained and quality care delivery. We actively engaged oncologists and shared patients' feedback to reinforce the service's value and improve compliance.

Real-world usability data are crucial to support proposals for systemic changes centre-/cluster-wide. We were unable to start our service with an integrated system where

the ePROs data feed into the electronic medical records directly, per an ideal situation. Nevertheless, with manual manpower support, we gathered preliminary data that are useful to build our case in our discussions with IHIS. Subsequently, we were engaged with ongoing plans to pilot ePROs using alternative software platforms (Eg. Zedoc).

## **Conclusion**

See poster attached/ below

## **Additional Information**

The presence of champions holding key leadership positions is instrumental in the initial phase to lead a committed workgroup. Coupled with regular review of workflows and feedback gathered from multiple perspectives (patient, healthcare professionals, service staff), the service can be continually refined with more available data. Collectively, a positive climate of change is created, encouraging more potential collaborations with other departments or institutions.

The impact of ACCESS is demonstrated on 3 levels:

- Being patient-centric, ACCESS directly benefits patients by improving access to useful health services.
- At the institution level, the adoption of routine distress screening and supportive care team support reflects greater compliance with international standards. The use of an ePRO tool to create actionable clinical opportunities/interventions presents a compelling case for ePROs' potential utility to be further expanded to other tools and cancer types.
- At a health system level, ACCESS has been costed for a potential outpatient cancer subvention norm revision with engagement of MOH and put forth by the MOH-commissioned National Advisory Committee on Cancer as a component of the National Cancer Plan.

## **Project Category**

Care & Process Redesign

## **Keywords**

Care & Process Redesign, Effective Care, Care Continuum, Community Care, Patient Reported Outcomes, Multi-Disciplinary, Nursing, Palliative Medicine, Oncology, Rehabilitation Therapy, Pharmacy, Psychology, Healthcare Administration, Informal Workforce, National Cancer Centre Singapore, ACCESS, Breast Cancer, Gynaecological Cancer, Distress Screening, Patient Needs Assessment

## **Name and Email of Project Contact Person(s)**

Name: Tan Yung Ying

Email: [Tan.Yung.Ying@nccs.com.sg](mailto:Tan.Yung.Ying@nccs.com.sg)





# Accessible Cancer Care to Enable Support for Cancer Survivors (ACCESS) Programme

Tan Yung Ying<sup>1</sup>, Ke Yu<sup>2</sup>, Loh Kiley Wei-Jen<sup>3</sup>, Alexandre Chan<sup>4</sup>, Yang Meijuan Grace<sup>1</sup>, Quah Song Chiek Daniel<sup>1</sup>, Tan Yee Pin<sup>5</sup>, Ramalingam Mothi Babu<sup>6</sup>, Si En Hui Phebe<sup>4</sup>, Tay Beng Choo<sup>1</sup>, Xu Zhizhen Susan<sup>1</sup>, Zhu Xia<sup>1</sup>, Natesan Neela<sup>1</sup>, Patricia Neo Soek Hui<sup>1</sup>

<sup>1</sup> Division of Supportive and Palliative Care, National Cancer Centre Singapore

<sup>2</sup> Department of Pharmacy, National University of Singapore

<sup>3</sup> Division of Medical Oncology, National Cancer Centre Singapore

<sup>4</sup> Department of Pharmacy, National Cancer Centre Singapore

<sup>5</sup> Department of Psychosocial Oncology, National Cancer Centre Singapore

<sup>6</sup> Rehabilitation Medicine Department, Singapore General Hospital

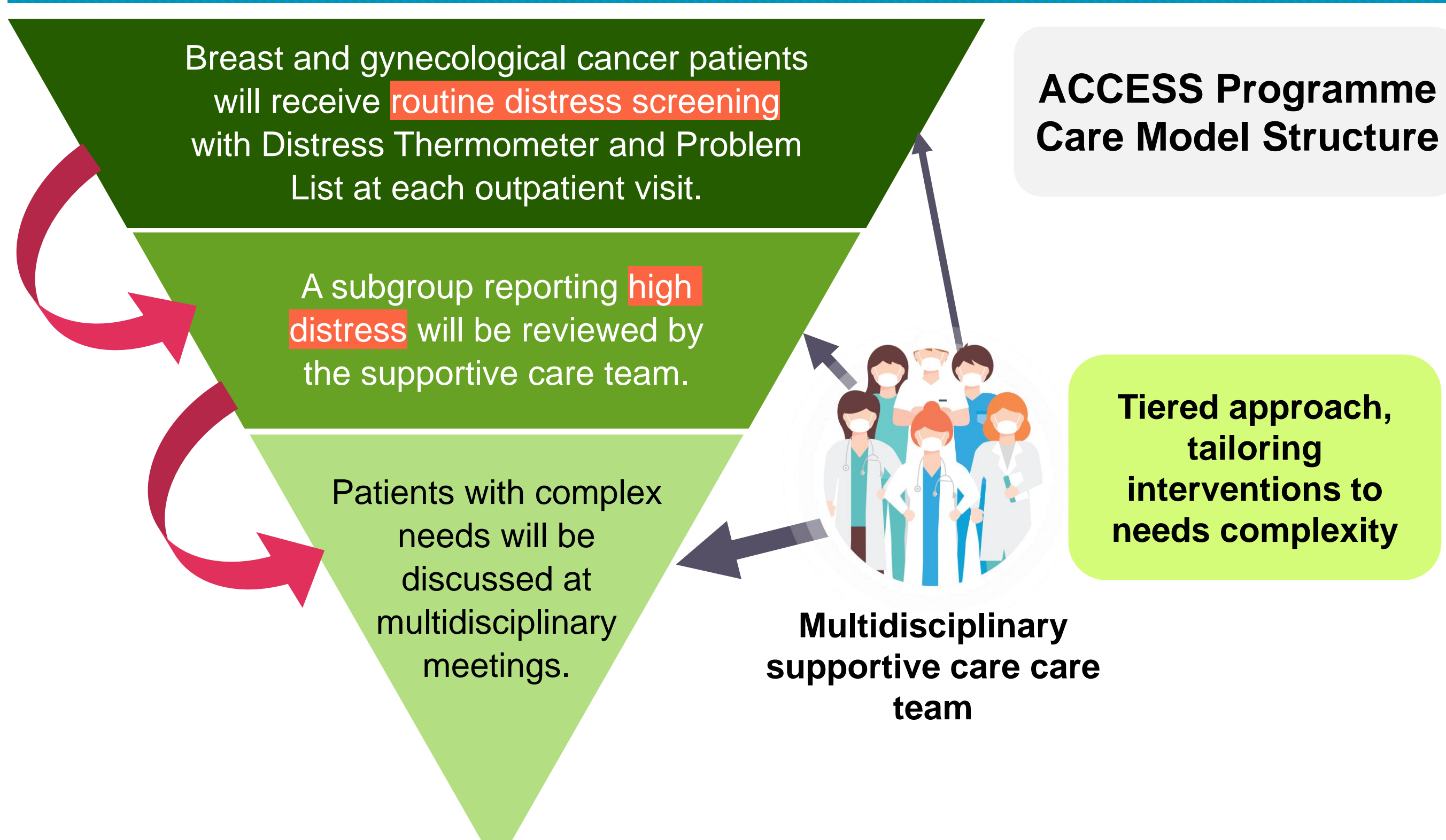
## INTRODUCTION

- \* Cancer patients face a myriad of medical and non-medical problems throughout the survivorship continuum.
- \* Current tertiary-centric model is inadequate in meeting patients' **long-term supportive care needs** with the following identified gaps:
  - **Lack systematic needs assessment**, especially for psychosocial issues, and care referrals, limiting effectiveness of downstream care planning.
  - Community after-care services are **poorly-integrated and coordinated**.
- \* Funded by Temasek Foundation Cares, ACCESS is a **multidisciplinary survivorship care model** piloted in NCCS in Sep 2019 among breast and gynaecological cancer patients.

## AIMS & OBJECTIVES

- \* ACCESS aims to construct a **holistic after-care model** that incorporates medical and complementary services to **manage cancer patients' needs upstream** and prepare them for **improved recovery in the community**.
- \* Objectives:
  - Introduce **routine distress screening** (using the Distress Thermometer and problem List) to systematically identify patients' medical and non-medical needs.
  - Identify **highly distressed patients** to be followed up by the supportive care team.
  - Conduct outreach to and education initiatives for community partners, **building community capability** and improving service integration across settings.

## METHODS



ACCESS was evaluated **longitudinally** in aspects of delivery, feasibility, and effectiveness.

Study	Design	Data source	Outcome measures
Delivery and feasibility of ACCESS for breast and gynaecological cancer patients: 1-year review	Retrospective review (Sep 19 – Aug 20)	Service documentation notes, screening results	<ul style="list-style-type: none"> <li>• Service outreach to eligible patients</li> <li>• Newly diagnosed patients identified as high risk for psychological distress</li> <li>• Overall adherence rate to screening tool completion</li> <li>• Proportion of patients reporting high distress</li> </ul>
Impact of ACCESS on healthcare resource utilization patterns: a 6-month follow-up study	Retrospective cohorts of service recipients vs. controls (Sep 19 – Feb 20)	eHints database	Within 6 months after index date (introduced to service), <ul style="list-style-type: none"> <li>• Scheduled and actualized appointments with rehabilitative and allied health services</li> <li>• Emergency department visits and hospitalization</li> </ul>
Effectiveness of ACCESS in improving newly diagnosed cancer patients' quality of life and symptom burden	Cluster randomized controlled trial (ongoing)	Patient-reported outcomes (EORTC QLQ-C30, Rotterdam Symptom Checklist)	Longitudinal changes in: <ul style="list-style-type: none"> <li>• Quality of life scores</li> <li>• Functioning statuses</li> <li>• Physical and psychological symptom distress levels</li> </ul>

## RESULTS

### 1 Delivery and feasibility of ACCESS

- \* ACCESS was successfully introduced to **1601** patients (**79%** of eligible patients during the reviewed period).
- \* **133 (42%)** newly diagnosed patients identified as high risk for psychosocial distress were provided access to medical social workers' support.
- \* Overall adherence rate to screening was **74%** (3861/5223 visits).
- \* **407 (25%)** patients who reported high distress were offered follow-up by the supportive care team.

### 2 Healthcare utilization patterns

**Table 1:** Comparison of scheduled rehabilitative and allied health visits.

Scheduled visits	Control (n = 1296)	Service recipients (n = 1292)	P
Rehabilitative, n (%)			<b>&lt;0.001</b>
None	1290 (99.5%)	1263 (97.8%)	
≥1 visit	6 (0.5%)	29 (2.2%)	
Actualization rate	45.5%	84.0%	
Allied health, n (%)			0.034
None	1095 (84.5%)	1051 (81.3%)	
≥1 visit	201 (15.5%)	241 (18.7%)	
Actualization rate	76.7%	82.2%	

Service recipients received **more rehabilitative and allied health service visits** and were **more adherent** to these appointments.

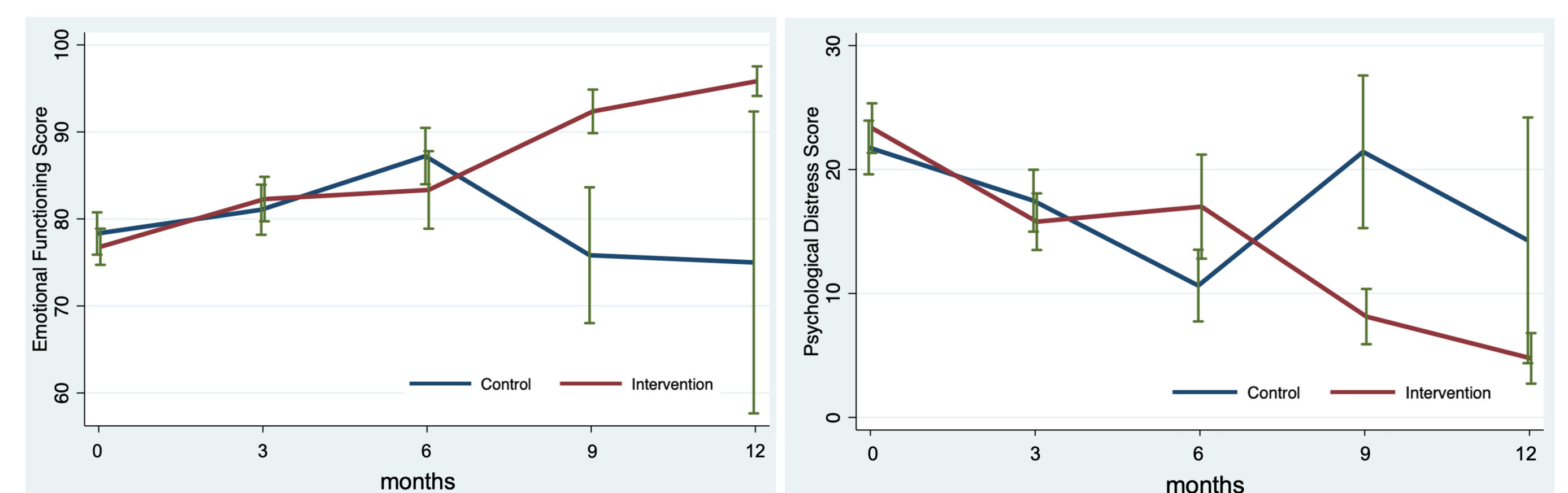
**Table 2:** Comparison of emergency department and hospitalization episodes.

Visits/ episodes	Control (n = 1296)	Service recipients (n = 1292)	P
Emergency department, n (%)			<b>0.051</b>
None	1122 (86.6%)	1151 (89.1%)	
≥1 visit	174 (13.4%)	141 (10.9%)	
Hospitalization, n (%)			<b>0.007</b>
None	1033 (79.7%)	1083 (83.8%)	
≥1 visit	263 (20.3%)	209 (16.2%)	

Service recipients reported a **lower level of healthcare resource utilization** with lower emergency department and hospitalization episodes.

### 3 Effectiveness of ACCESS on patient-reported outcomes

- \* Comparable trajectory of quality of life scores and physical distress levels
- \* As compared to controls, service recipients experienced:
  - Consistent **improvement and higher** emotional functioning (**Fig. 1**)
  - Consistent **reduction in psychological distress levels** over time (**Fig. 2**)



**Fig. 1:** Profile of mean emotional functioning scores (*high score indicates better functioning*)

**Fig. 2:** Profile of mean psychological distress scores (*high score indicates higher distress*)

## CONCLUSION

- \* The **value** of ACCESS is exemplified in the following aspects:
  - Systematic management of non-medical care needs **improved psychological distress levels and emotional functioning status**.
  - The supportive care team optimized the provision of and referral to relevant rehabilitative and allied health services to aid in patients' functional recovery.
  - **Reduced unplanned healthcare utilization** with earlier identification and intervention of symptoms/problems.
- \* **Key lessons** learn from implementation experience:
  - Consider an alternative mode for electronic-based services.
  - **Continual outreach efforts** to update and engage service team members is crucial to ensure sustainability.
  - **Real-world usability data** is crucial to propose for systemic changes centre-wide.