

tumour could be related to the aggressiveness that some silent corticotroph adenomas can have. Nevertheless, the long period of prior stability and history of radiotherapy led us to a sarcomatous transformation as the most probable cause. Full surgical resection is the only curative option, but this is achieved in less than 20% of cases.^{4,5} Radiotherapy and chemotherapy have been used as palliative options in progressively growing tumours or advanced metastatic disease,^{4,5} however, the mean survival of these patients is six months.⁵

To conclude, sellar sarcomas are uncommon and aggressive tumours with a poor prognosis that appear in middle-aged patients. There is very little to base a presumed diagnosis on prior to surgery, but a change in clinical and radiological behaviour of a previously irradiated residual tumour could be useful in some cases. Full excision is the only option for survival for these patients.

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References

- Melmed S. Pituitary-tumor endocrinopathies. *N Engl J Med.* 2020;382:937–50, <http://dx.doi.org/10.1056/NEJMra1810772>.
 - Kaltsas GA, Kolomodi D, Randeva H, Grossman A. Nonneuroendocrine neoplasms of the pituitary region. *J Clin Endocrinol Metab.* 2019;104:3108–23, <http://dx.doi.org/10.1210/jc.2018-01871>.
 - Hatina J, Kripnerova M, Houfkova K, Pesta M, Kunecova J, Jiri Sana J, et al. Sarcoma stem cell heterogeneity. *Adv Exp Med Biol.* 2019;1123:95–118, http://dx.doi.org/10.1007/978-3-030-11096-3_7.
 - Ferrari A, Dirksen U, Bielack S. Sarcomas of soft tissue and bone. *Prog Tumor Res.* 2016;43:128–41, <http://dx.doi.org/10.1159/000447083>.
 - Guerrero-Pérez F, Vidal N, López-Vázquez M, Sánchez Barrera R, Sánchez Fernández JJ, Torres Díaz A, et al. Sarcomas of the sellar region: a systematic review. *Pituitary.* 2020;24:117–29, <http://dx.doi.org/10.1007/s11102-020-01073-9>.
 - Famini P, Maya MM, Melmed S. Pituitary magnetic resonance imaging for sellar and parasellar masses: ten-year experience in 2598 patients. *J Clin Endocrinol Metab.* 2011;96:1633–41, <http://dx.doi.org/10.1210/jc.2011-0168>.
 - Yamanaka R, Abe E, Sato T, Hayano A, Takashima Y. Secondary intracranial tumors following radiotherapy for pituitary adenomas: a systematic review. *Cancers (Basel).* 2017;9:103, <http://dx.doi.org/10.3390/cancers9080103>.
 - Hui JY. Epidemiology and etiology of sarcomas. *Surg Clin North Am.* 2016;96:901–14, <http://dx.doi.org/10.1016/j.suc.2016.05.005>.
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Effective transdisciplinarity in diabetes care: PRECEDE Diagnosis[☆]



Transdisciplinariedad efectiva en el cuidado de la diabetes: Diagnóstico PRECEDE

Diabetes mellitus (DM) is a complex, multifactorial disease that necessitates an integrated process for activities and different outcome measurement levels.¹

Transdisciplinary care (TDC) is the joint provision of services, encompassing different settings and disciplines, with continual interactions between the health and social care systems that each person lives and is immersed in.²

TDC can better tackle barriers in DM management, improving outcomes through a holistic assessment of needs and resources, as well as better communication both between professionals and with people with DM (PWD). Each member contributes a unique perspective to tackle the multifaceted challenges of DM care, but if the differing professional viewpoints are not integrated with a team focus, this can give rise to fragmented care. The challenge is to generate a relational or translational process in which each member has a key role based on the transfer and co-creation of knowledge, which the PWD, as a co-responsible participant, must efficiently apply each day at home.³ A randomised, controlled clinical trial is currently underway comparing this TDC against the standard of care in type 1 DM.⁴

The objective of this publication is to apply the PRECEDE model to describe the opinions of a group of experts responsible for decision making in the DM management process, in connection with providing effective diabetes care through TDC.

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Table 1 PRECEDE diagnosis for TDC in diabetes.

Diagnosis of needs	Interventions
Predisposing factors The patient, their emotions and their unmet needs must be the axis around which the entire process revolves, being empowered and independent in understanding, accepting and managing their disease, and establishing a relationship of trust and empathy.	Enabling the target population to discuss their needs in the creation of uniform training plans for both professionals and patients.
Self-criticism, ability to understand others and avoid prejudices.	
Enabling factors Ability to communicate, to put oneself in another's shoes and understand their unmet needs as the axis around which the care process revolves	Generating and enhancing PwD capabilities at home (what and how much to eat, medication, physical activity) and psychosocial capabilities (social environment, work, physical activity, family group, emotions, beliefs, idiosyncrasies).
Lack of uniformity in appropriate/regulated advice for patients from different professionals and care levels.	Facilitating access to and resources for an integrated diabetes care process (technology, shared medical records, etc.).
Reinforcing factors The process of organisational transformation encountered by health systems offering different responses to the paradigm change going from curing to caring:	Integrating treatment and care, shortening the distances between knowledge, sharing practical solutions, bringing together the healthcare system and the social setting, each with their own role (professionals from different disciplines and care levels, scientific associations, PwD and patient associations).
Care inhabits a complex terrain, which often makes achieving therapeutic effectiveness difficult.	Establishing objectives shared by all and focussed on the PwD to assess the quality and performance of the care process: feeling of well-being, being in good shape, good self-image, being a role model for peers.

This research is qualitative and interactive, with intentional or non-probability sampling. To define the reference group (RG), two regional DM plans available online were analysed.^{5,6}

Ten profiles were defined and characterised: PwD, physicians and nurses in primary and specialist care, connection with PwD, scientific association, health policy, research and other professionals such as podiatry. The Cochrane recommendations for qualitative research were followed in the formulation of the questions and development of the survey.⁷

The validation process was carried out by two experts in qualitative techniques and two psychometrists. Subsequently, a conceptual validation was carried out, followed by a subjective global validation.⁸

The questions were divided into five areas: 1) assessment of each defined role's interventions; 2) what might need to be improved/redesigned in the process; 3) what dialogue or new channels for knowledge might be needed; 4) what levers for change are in the works; 5) how can the needs of the process be organised?

The inclusion criteria defined were that the group be representative in nature, with a uniform experience of 10 years or more in DM care.

At the beginning of the face-to-face interview, informed consent was collected, and a structured and semi-structured interview process was followed based on the appreciative dialogue methodology (positive examples of respondents'

organisation), what works, how it works, why it works and for whom it works:

The individual responses were summarised to facilitate analysis and were mapped onto the various components of the PRECEDE model, in order to characterise behaviour-related factors as one of three types^{9,10}:

Predisposing factors (what influences motivation), what the individual or group thinks, believes, etc.

Enabling factors (abilities and resources), what they know or do not know how to do, what they do or do not have in their setting.

Reinforcing factors (consequences), these are hypotheses, what they believe the group stands to gain or lose when the behaviour is implemented.

Ten participants answered the questionnaire (one for each profile defined), and the fundamental factors or principal themes were summarised (Table 1).

The principal finding of this study is a series of factors relating to motivations, abilities and resources, and consequences, advancing us toward a TDC model.

TDC offers a pathway to improve the quality of care and the effectiveness of DM management, adopting a systemic perspective, reorganising care processes and including different disciplines in improving the self-care capabilities of PwD, the ultimate common agent in this process. The collaborative process of TDC is built on the specificity of the contributions of the various disciplines to the team.

The care process must arrive at a continuous shared vision of work entered into by multiple professionals, working at

different locations, at different care levels and at different times, but with a shared goal: the person.

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References

1. American Diabetes Association. Improving care and promoting health in populations: standards of medical care in diabetes—2019. *Diabetes Care*. 2019;42:S7–12, <http://dx.doi.org/10.2337/dc19-S001>.
2. Fernandez Piciochi CF. El desafío de la transdisciplinariedad en la diabetes. *Rev Tesela*. 2014;16.
3. Tebes JK, Thai ND, Matlin SL. Twenty-first century science as a relational process: from eureka! To team science and a place for community psychology. *Am J Community Psychol*. 2014;53(3–4):475–90, <http://dx.doi.org/10.1007/s10464-014-9625-7>.
4. Alderfer M. Transdisciplinary versus usual care for type 1 diabetes in adolescence. *ClinicalTrials.gov Identifier: NCT03557151*. <https://clinicaltrials.gov/ct2/show/study/NCT03557151?term=transdisciplinary&cond=Diabetes&draw=2&rank=1>.
5. Estrategia en Diabetes del Sistema Nacional de Salud Actualización. 2012. Ministerio de Sanidad, Servicios Sociales e Igualdad. NIPO: 680-12-047-5. https://www.mscbs.gob.es/organizacion/sns/planCalidadSNS/pdf/excelencia/cuidadospaliativos-diabetes/DIABETES/Estrategia_en_diabetes_del_SNS_Accesible.pdf.
6. Plan Integral de Diabetes de Andalucía. <http://www.juntadeandalucia.es/export/drupaljda/pidma3.pdf>, 2016.
7. Noyes J, Booth A, Cargo M, Flemming K, Garside R, Hannes K, et al. Cochrane Qualitative and Implementation Methods Group guidance series—paper 1: introduction. *J Clin Epidemiol*. 2018;97:35–8, <http://dx.doi.org/10.1016/j.jclinepi.2017.09.025>.
8. Fernandez Piciochi C, Sarria Santamera A. Análisis y evaluación del proceso de diabetes asociado al impacto del conocimiento aplicado: Proceso de diseño y validación de la encuesta. *Endocrinol Diabetes Nutr*. 2018;65:219.
9. De la Cruz Saugar G, Sarria-Santamera A. Planificación en Promoción de la Salud. In: Sarria-Santamera A, Villar Álvarez E, editors. *Promoción de la Salud en la Comunidad*. Madrid: Universidad Nacional de Educación a Distancia; 2014. ISBN electrónico: 978-84-362-6897-3.
10. Bimbela JL. Aplicación del modelo PRECEDE en la prevención del VIH/SIDA. *Matronas Prof*. 2001;2:4–9.

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