



# PROGNOSTIC AWARENESS AND COMMUNICATION OF PROGNOSTIC INFORMATION IN MALIGNANT GLIOMA: A SYSTEMATIC REVIEW

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## Background

- Malignant glioma (MG) has a uniformly poor prognosis.
- Accurate prognostic awareness (PA) and satisfaction with communication about prognosis is associated with improved psychological outcomes and quality of life in patients with advanced cancer and their caregivers.
- Little is known about PA or preferences for communication of prognosis in MG.

## Methods

- A systematic review of studies pertaining to PA or communication of prognosis in MG.
- 8,539 titles were retrieved from MEDLINE, Embase, The Cochrane Library, Web of Science, PsycINFO, and grey literature.
- 14 articles met inclusion criteria: 6 evaluated PA, 5 evaluated communication, and 3 were systematic reviews in MG.

Figure 1. Factors associated with limited PA

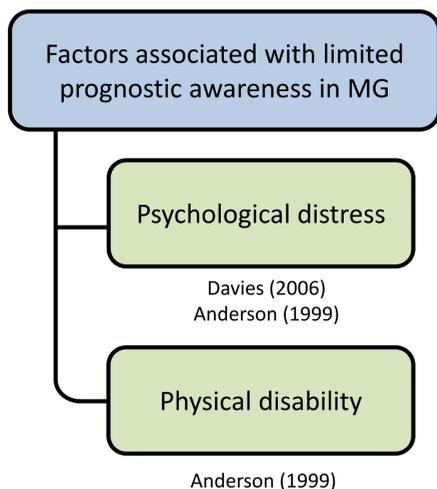
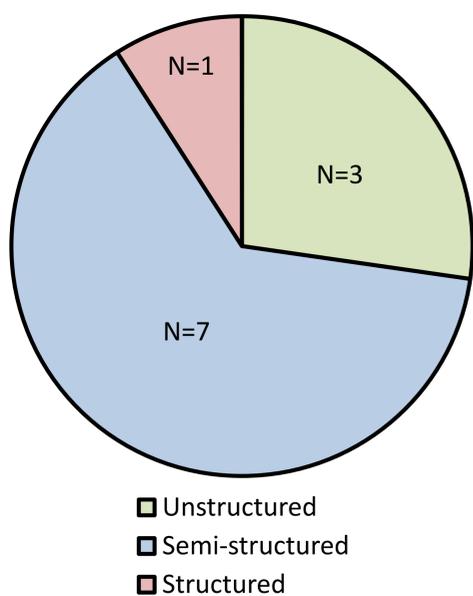


Figure 2. Method of assessment of PA



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## Results

Table 1. Prognostic Awareness in Malignant Glioma

Author	Patients	Timing	PA definition	PA finding
Anderson (1999)	40 with brain tumors, 16 with MG	≤ 16 months of initial treatment	“Understanding the diagnosis and its implications”	<ul style="list-style-type: none"> <li>• 49% had full PA</li> <li>• 43% had limited PA</li> <li>• 7% no PA</li> </ul>
Cavers (2012)	26 with suspected brain tumors, 17 with MG	≤ 6 months of initial treatment	“Awareness that progression of disease was likely”	<ul style="list-style-type: none"> <li>• “Most” possessed PA</li> </ul>
Davies (1996)	75 with MG	At diagnosis, after radiotherapy, and at recurrence	“Belief in the possibility of cure and thoughts about the possibility of death”	<ul style="list-style-type: none"> <li>• 25% had full PA at diagnosis</li> <li>• 52% had full PA at recurrence</li> </ul>
Lyons (1996)	20 with MG	Any time in disease course	“Understanding and acknowledging the seriousness of their illness”	<ul style="list-style-type: none"> <li>• “Some” did not understand prognosis</li> <li>• “Others” did not want to know</li> <li>• “Others” understood fully</li> </ul>
Salander (1996)	19 with MG	At diagnosis	“Awareness that the brain tumor exposed them to grave danger”	<ul style="list-style-type: none"> <li>• 58% had full PA</li> </ul>
Ward-Smith (1997)	8 with MG	≤ 1 year from diagnosis	Awareness that prognosis is poor and awareness of survival statistics	<ul style="list-style-type: none"> <li>• 100% had full PA</li> </ul>

Table 2. Communication of Prognostic Information in Malignant Glioma

Author	Patients	Timing	Outcome Evaluated	Communication finding
Diaz (2009)	26 with MG, 18 caregivers	At diagnosis	Preferences for information about diagnosis and prognosis. Satisfaction with information.	<ul style="list-style-type: none"> <li>• 50% wanted all information about disease.</li> <li>• 68% fully or sufficiently comprehended information received.</li> <li>• Desire for information and comprehension of information was associated with reduced anxiety.</li> </ul>
Halkett (2010)	19 with MG	≤ 1 year of diagnosis	Preferences for information about diagnosis and prognosis.	<ul style="list-style-type: none"> <li>• Prognostic information is inaccurate and not delivered early enough.</li> <li>• Some patients prefer only minimal/optimistic prognostic information.</li> </ul>
Janda (2006)	18 with brain tumors, 6 with MG	Any time in disease course	Supportive care needs, including communication and information.	<ul style="list-style-type: none"> <li>• Anxiety about prognosis and life expectancy exists throughout the disease course but is often addressed only in the hospice setting.</li> </ul>
Lobb (2011)	19 with MG, 21 caregivers	≤ 1 year of diagnosis	Communication of prognosis during first visit.	<ul style="list-style-type: none"> <li>• Delivery of prognostic information can minimize hope.</li> <li>• Delivery of prognostic information should be individually tailored.</li> </ul>
Rosenblum (2009)	10 with MG, 4 caregivers	Any time in disease course	Information needs to promote hope.	<ul style="list-style-type: none"> <li>• Patients want “good and bad” information about prognosis.</li> <li>• “Most” want estimates of life expectancy.</li> <li>• Optimism and examples of positive outcomes can allow for the preservation hope in the delivery of prognostic information.</li> </ul>

## Conclusions

- Prognosis is a central concern in MG.
- Many patients are not aware of the incurability of MG although predictors of limited awareness are not known.
- Accurate PA for MG patients may be associated with reduced psychological distress, although evidence is limited.
- MG patients vary in desire for partial or extensive prognostic information.
- Patients with MG and their caregivers are generally dissatisfied with how prognostic information was communicated to them.

## Future Directions

- The amount, mode of delivery, and evaluation of comprehension of prognostic information in MG patients have not been adequately studied.
- Further research about PA and preferences is required to determine the extent to which accurate PA is a desirable outcome in patients with MG and their caregivers.
- Cognitive impairment is nearly universal in MG patients and requires dedicated investigation in its relation to communication of prognosis.