Communicating medical information with Aboriginal patients: lessons learned from GPs and GP registrars in Aboriginal primary health care

Wissam Ghamrawi\textsuperscript{a,b,*}, Jill Benson\textsuperscript{a,b}, and Emma Kennedy\textsuperscript{a}

\textsuperscript{a}Flinders University, College of Medicine and Public Health, Bedford Park, NT41326, Australia.

\textsuperscript{b}GPEx, Research Department, Unley, SA5061, Australia.

*Correspondence to: Wissam Ghamrawi Flinders University, College of Medicine and Public Health, Bedford Park, NT 41326, Australia Email: w.ghamrawi@protonmail.com
Supplementary Material 1

Scenarios and Interview Questions

Interviews were conducted via zoom and each scenario was placed individually on the screen. The interviewee was allowed time to read the scenario then the same interview questions were asked for each scenario. Prompts were provided for the interviewer in case the questions needed further clarification.

Scenarios

I. **Scenario 1**: 45-year-old Aboriginal man known to the clinic, lives at home with his partner and 2 kids, works at the local supermarket
   - **Presenting Complaint**: Review of results following a recent health assessment
   - **Past Medical History**: Hypertension, Back pain, Type 2 Diabetes Miletus
   - **Medications**: Perindopril, Celebrex, Metformin
   - **Results to discuss**: eGFR 32 (last eGFR 43), HBA1c 7.2 (stable)

II. **Scenario 2**: 35-year-old Aboriginal female, lives at home with her 3 kids, non-smoker.
   - **Presenting Complaint**: Presented asking about her COVID and flu vaccines
   - **Family history**: Mother had breast cancer at the age of 45.
   - You realise on your software that she has not had a cervical or breast screening test and she admits not attending for a GP appointment for a while due to work/family responsibilities.

III. **Scenario 3**: 60-year-old Aboriginal woman, transient patient from a remote community
   - **Presenting Complaint**: Feeling depressed
   - After a short conversation you realise that her son has completed suicide 3 months ago and she has not been feeling well since. She feels guilty for what happened as she could not stop it. She has not taken her regular medications for a while. You even realise that she has not been wearing her seat belt while driving. Meanwhile, when you ask her directly if she is suicidal, she strongly denies it.

Interview Questions

1. Tell me about yourself and your experience in Aboriginal Health?
2. Before seeing the patient, what are the things that you would be thinking about or considering when you have such scenario?
   - Prompt 1: What are the medical aspects of management that you would manage?
   - Prompt 2: What are the psychosocial aspects of management that you would manage?
3. Given all the information today, how would you approach this scenario today?
   - Prompt 1: Out of all these issues, what would you prioritise in this initial consult?
   - Prompt 2: Why would you prioritise this issue?
4. Would you consider any resources or education materials and what are they if any?
   - Prompt 1: How useful do you find the resources?
   - Prompt 2: Any community support that you would utilise in this scenario?
5. Would you have any further comments on how to manage this scenario moving forward?
## Supplementary Material 2

### Codebook

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Files</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement with the health system</td>
<td></td>
<td>12</td>
<td>85</td>
</tr>
<tr>
<td>Allied health referrals</td>
<td>Role of allied health (generally other than Aboriginal health works)</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>external influences on one's health</td>
<td>External elements affecting patient’s care or decisions or thoughts</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>patient centred care</td>
<td>Patient as a focus of attention</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>the ripple effect</td>
<td>Impact of one decision on others</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>time</td>
<td>Any time related matters</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Health literacy</td>
<td></td>
<td>12</td>
<td>139</td>
</tr>
<tr>
<td>Aboriginal Health Workers role</td>
<td>Aboriginal Health workers</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>giving measurable examples</td>
<td>Giving examples</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>good handouts</td>
<td>Any handouts related material</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>thoughts on providing handouts</td>
<td>Thoughts on providing handouts</td>
<td>12</td>
<td>39</td>
</tr>
<tr>
<td>Patient-doctor relationship</td>
<td></td>
<td>12</td>
<td>107</td>
</tr>
<tr>
<td>body language</td>
<td>May include verbal or physical language used</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>building rapport</td>
<td>Any processes related to building rapport</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>shared-decision making</td>
<td>Action plans with patients</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>understanding &amp; meeting patient's agenda</td>
<td>Respecting patient’s choices and wishes</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Doctor's issues</td>
<td></td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Exposure to Ab health</td>
<td>exposure in Aboriginal health</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>GP level of experience</td>
<td>Level of experience</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Before the consultation</td>
<td>Any thoughts prior to seeing the patients</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>During the consultation</td>
<td>Thoughts to address during the consultation</td>
<td>12</td>
<td>82</td>
</tr>
<tr>
<td>cultural considerations</td>
<td>Any culturally specific ideas in Aboriginal culture</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

*Files = Indicates the number of source files containing the specific code name, where each file corresponds to an interview conducted with a single General Practitioner. In total, there were twelve interviews conducted, seven interviews with experienced GPs and five with less experienced GPs.*
**References = the number indicates the frequency of citations for a specific code across all interviews.**
### Experienced GPs

**Aboriginal Health workers role**
- **Interviewee 1**: have time to screen patients and build rapport and trust, provide support
- **Interviewee 2**: provide information and context about the patient to guide treatment, help follow up and support patients
- **Interviewee 3**: screen patients, provide advice, be involved
- **Interviewee 4**: know patients, provide cultural safe space, visit patients
- **Interviewee 5**: following their direction and you can’t go wrong, they maintain patient engagement
- **Interviewee 6**: create a bridge between community and health workers, education about disease especially in low literacy level patients, a resource patients may come to
- **Interviewee 7**: education especially for patients with low literacy levels or who don’t speak language nor read, they have time to sit with patient, screen patients

**Before the consultation**
- **Interviewee 1**: assess level of rapport and relationship with myself/service, addressing ARF, meds review, focusing on patient’s concerns, give the patient confidence in my knowledge so that she trusts me that I give good advice, lots of community support
- **Interviewee 2**: make a doctor-patient relationship, therapeutic yarning that is relevant to the patient with ARF in the background as a concern. Identifying how patient describes her own feelings as she is clearly lost and isolated
- **Interviewee 3**: assessing ARF, family history, medication review. Control my own empathy and frustration, yarn through BATHE technique
- **Interviewee 4**: understand the social circle, medication review, causes of ARF, SNAP history, drug use and history of trauma, opportunistic cancer screening, identify language spoken through the AHWs.
- **Interviewee 5**: medical antenna goes up first, meds r/v in setting of ARF, need for community support, accommodation status, contact details, medication review and compliance
- **Interviewee 6**: review background notes, assessing results, health literacy levels, reason for presenting
- **Interviewee 7**: ARF review and comorbidities, overall health, medication review, identifying red flags and suicidal risk

**During the consultation**
- **Interviewee 1**: building rapport, establish a level of trust to get them back, continue to develop a relationship, find out patient priorities as
- **Interviewee 2**: identify trend in renal function, identify external influences on one’s health such as family work and balancing comorbidities, identify support network and safety net, medication review and seriousness of medical needs
- **Interviewee 3**: addressing causes of ARF, congratulating patient for health achievements, SNAP screening, motivation level for change, identifying barriers to “being healthy”
- **Interviewee 4**: identify causes of ARF, meds review, access to CTG meds, addressing back pain, SNAP screening, upToDate investigations, allow patient to vent, establish a DSM diagnosis/treatment.
- **Interviewee 5**: addressing ARF history, diagnosis and causes, establish support network, keep an eye medical comorbidities

### Novice GPs

**Interviewee 1**: their relationship with the patient may be more powerful than handouts. In the absence of doctors in remote communities, they take the lead. They provide comprehensive screening. They organise community groups to raise awareness on health topics. They provide cultural support in hospital setting. They help identify key issues prior to the consultation which then provides a better structure to the consultation.

**Interviewee 2**: they screen patients to identify client’s needs. They provide a safe space for patients to open up and allow the clients to leave satisfied and empowered with better knowledge

**Interviewee 3**: provide patient context, cultural knowledge & support during appointments. may substitute handouts. They build trust in the system.

**Interviewee 4**: gives context on patients especially new ones, provide safe space

**Interviewee 5**: better understanding of patient, they know the patient

**Interviewee 1**: r/v recent health assessment and the reason for it, meds review, smoking/drugs/alcohol history, check AIR, understanding patient context, identifying social/cultural circle, previous mental health input. All prepping might change once patient is in the room

**Interviewee 2**: identify trend in renal function, identify external influences on one’s health such as family work and balancing comorbidities, identify support network and safety net, medication review and seriousness of medical needs

**Interviewee 3**: addressing causes of ARF, congratulating patient for health achievements, SNAP screening, motivation level for change, identifying barriers to “being healthy”

**Interviewee 4**: identify causes of ARF, meds review, access to CTG meds, addressing back pain, SNAP screening, upToDate investigations, allow patient to vent, establish a DSM diagnosis/treatment.

**Interviewee 5**: addressing ARF history, diagnosis and causes, establish support network, keep an eye medical comorbidities
Engagement with the health system

**Interviewee 1:** psychosocial assessment, home/work situation, referral to allied health, engagement with previous clinic,

**Interviewee 2:** understanding patient's background/family/work/education and experience with the health system. Elastic time with patients, address main concern and then preventive health, follow up, community support, silence is powerful, empowering aboriginal people to speak up as they may be too polite to

**Interviewee 3:** address ARF, praise patient for good results, address presenting concern only and leave SNAP for health assessments, use BATHE technique, empathise, raise consequence of patient actions on loved ones

**Interviewee 4:** start with positives/strengths, assess patient feelings/thoughts on getting better results, SNAP assessment, assess if patient is aware of ARF as a problem, rationalise meds in context of ARF, organise GPMP, build rapport by asking how patient likes to be called and where they're from, offer opportunistic screening, affirm patient desire to better themselves, sit quietly and listen which may be uncomfortable, ask indirectly about suicidal thoughts, think about hopelessness and helplessness, check contact details and ability to call

**Interviewee 5:** two-way negotiation balancing questions in order to transfer knowledge about ARF, fix modifiable risk factors, ask black and white questions to assess risk of suicide, understand patient's movements, offer Centrelink certificate

**Interviewee 6:** address ARF, assess level of understanding, medication review, arrange follow up, approach based on relationship level, assess main concern first, offer opportunistic screening, assess level of support

**Interviewee 7:** congratulate on positives, address ARF, shared decision making, go through results, address most important due to limitation of time, assess back pain, offer opportunistic screening, talk to radiologist for advice, check general status and wellbeing, wait and listen, offer counselling support, medication review, assess protective factors,

**Interviewee 1:** assess level of engagement, do less over time if engaged, home situation impacts engagement, prioritise social aspects over medical, assess reasons for not engagement, presence of 715, individual's engagement impact their network of people (ripple effect), health days increase engagement in remote communities, attendance of women's group, presence of cultural support if sent to hospital, engagement is the gateway any further steps, address patient priorities then shared decision making which is not necessarily what the textbook recommends, unknown leads to non-engagement thus focus on Health lit
| Patient doctor relationship | Interviewee 1: level of relationship, start conversation about normal stuff, share a bit about myself, assess his level of understanding of his health, assess med/s compliance, building rapport is the most important to better engagement, address patient priorities, allow patient to see that I'm someone that can be trusted with good advice, assess level of community support, empathetic non-threatening approach giving time to listen and vent  
Interviewee 2: make a relationship first, therapeutic yarning, adjust posture to less aggressive, when defensive patients don’t talk and they listen through a filter, divert to a nonmedical story that is relatable to them, may use entire consultation just to build rapport, handouts are useless if there is no rapport, let the patient set the scenario, introduce conversations in their own terms and wishes to make it their own, show curiosity in their story  
Interviewee 3: share your experience I Aboriginal health to build rapport, limit opportunistic screening to 715s unless they brought something up, handshake goes a long way for blokes, allow family members to join in  
Interviewee 4: avoid eye contact and being aware of tendency to be directly friendly. May use terms like “uncle” if they want, curiosity in their background story, check patient priorities, allow patient to know about what they’re doing well, offer support person to join consult, have a general conversation, give space for her to vent, accept silence even if uncomfortable, high degree of curiosity and patience, link her with clinic services  
Interviewee 5: offer cup of tea and biscuit, get to know her, establish common ground, share personal story  
Interviewee 6: family illness may trigger engagement, refer to AHW, exchange knowledge about current situation, take your time and tolerate silences  
Interviewee 7: seeing an AHW to save time, book a 715, allow time to vent, instant review by counsellor, allow patient to see few people in the clinic will give sense of community support, offer crisis numbers, ring crisis number in front of patient  
Interviewee 8: ACCHS provide patient centred care with all their needs, address family/work situation that impacts engagement, referral to allied health teams, utilise AHW to answer patient questions, give patient options to access help  
Interviewee 9: importance of autonomy and community control in getting good outcomes, assess financial/housing/family/food situation, access to community services, access to allied health/Centrelink/social workers, understand context from AHW, access to transport, long time needed  
Interviewee 10: housing/financial situation, cultural connection, rebook due to limitation of time although preferably do everything on the day, referral to allied health, patient don’t tolerate referrals to multiple agencies  
Interviewee 11: work situation, relationship with the service is more with the AHWS, offer assessment to all family members, feeling overwhelmed can limit engagement, arrange transport, housing/food support, inhouse support may be more accessible,  |

Interviewee 2: ACCHS provide patient centred care with all their needs, address family/work situation that impacts engagement, referral to allied health teams, utilise AHW to answer patient questions, give patient options to access help  
Interviewee 3: importance of autonomy and community control in getting good outcomes, assess financial/housing/family/food situation, access to community services, access to allied health/Centrelink/social workers, understand context from AHW, access to transport, long time needed  
Interviewee 4: housing/financial situation, cultural connection, rebook due to limitation of time although preferably do everything on the day, referral to allied health, patient don’t tolerate referrals to multiple agencies  
Interviewee 5: work situation, relationship with the service is more with the AHWS, offer assessment to all family members, feeling overwhelmed can limit engagement, arrange transport, housing/food support, inhouse support may be more accessible,
<table>
<thead>
<tr>
<th>Body Language</th>
<th>Health Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee 2</strong>: respond to physical cues, if defensive sit back, drop eyes and chair to be lower than the patient to avoid aggressive posture or professional posture</td>
<td><strong>Interviewee 1</strong>: assess patient understanding as a start, there are good handouts to use if they were easily accessible, though, AHW involvement and team approach to patient care, prefer counselling and support rather than handouts</td>
</tr>
<tr>
<td><strong>Interviewee 3</strong>: handshake seems to be important for blokes</td>
<td><strong>Interviewee 2</strong>: understand patient background, listen to vocabulary used, assess level of education and the understanding of the health system, handouts are acceptable if there is comfort with the doctor and the health system, ask permission before giving handouts, use AHWs</td>
</tr>
<tr>
<td><strong>Interviewee 4</strong>: avoid eye contact and being aware of tendency to be directly friendly</td>
<td><strong>Interviewee 3</strong>: refer to AHWs for screening and advice, yarning is more preferred than handouts, pamphlets feel like a cop out with Aboriginal people, may use ibobbly app but I need to know it more, <strong>Interviewee 4</strong>: it’s hard to find plain language summaries but there is certainly some around, it’s important to make sure people can read and understand, ask patient how they prefer to get their information then find something that suits them, youtube is used a lot in, I’m realising I don’t use educational materials enough, check with AHW how to facilitate open communication and what language the patient</td>
</tr>
<tr>
<td><strong>Interviewee 5</strong>: body language may instil confidence in patients and is a big part</td>
<td><strong>Interviewee 5</strong>: handouts depend on level of engagement of patient so I’d ask first otherwise get AHW on board, picture based handouts are the best, time spent with patient is more valuable than handouts, Aboriginal specific handouts are great especially ones available in the clinic, ripple effect when educating one person, patients use social media to learn, use consult to educate more, unknown leads to non-engagement thus focus on health literacy, use of women’s group, nuses and AHWs, provide cultural support, handouts empower patients to make their own decisions and navigate the health system when given at right stage of illness, it also empowers family members, handouts for safety netting, AHW screening helps identify issues and provide structure</td>
</tr>
<tr>
<td><strong>Interviewee 6</strong>: body language is important and clinician needs to pick on clues, the eye contact</td>
<td><strong>Interviewee 2</strong>: clarify understanding of renal disease and if previously discussed, see what patient wants to know, MDT approach, follow up through an AHW, opportunistic screening, look for culturally appropriate handouts, give handouts based on patient preference as consultation may be enough, multiple layers of screening in clinic allowing better understanding what the patient needs</td>
</tr>
<tr>
<td>None</td>
<td><strong>Interviewee 3</strong>: Ask AHW for patient context, tailor handouts based on patient health literacy, using traffic light system to visualise the problem, utilising AHWs as a resource and support person, explain use of 715, provide culturally appropriate handouts, language and cultural barriers to address, use of interpreters if needed, handouts not suitable in suicidal, lack of trust in the system</td>
</tr>
</tbody>
</table>
| Doctor’s issues | Interviewee 1: I would suggest a female GP is available  
Interviewee 2: as a male would be hard to offer women’s health check  
Interviewee 3: awkward being a male because women’s health tend to be done by women in Ab health, need to control my emotional frustration to what happened to Aboriginal people that pushed them to the point of suicide  
Interviewee 6: i don’t do women’s health much, it feels more difficult when we realise it is hard to communicate and connect with the patient as I would be worried I wouldn’t be able to break through and help her move on | Interviewee 1: frustrated from what’s in our backyard, I wasn’t really taught about it at school, being junior doctor makes me more risk aware and cautious which may jeopardise my ability to connect  
Interviewee 3: would steer the patient to a long term consultant for continuity of care and would refer to senior GP to set up a good structure for the patient  
Interviewee 5: I feel out of my depth often due to medical and social complexity, many happening at one time, |
| --- | --- | --- |
| Interviewee 5: follow directions from AHWs and you can’t go wrong, work closely with AHW to understand the community, ask patient to look at their results on the computer to give them a “visual”, use google pictures to explain, you need to make the numbers simple to the patient, would love to have culturally appropriate material but you don’t get them from a quick search on google, no body read handouts but if there is a picture they may look at it, educational materials should be very concise and to the point, patient would know all about breast cancer because of her mum’s experience,  
Interviewee 6: I’d think about health literacy, explore his understanding about the illness, education is part of the management, may benefit from talking to an AHW who are the bridge between the community and doctors, patient maybe worried after seeing a family member’s experience, understanding health literacy allows you to get to a point where you are talking to the patient at a comfortable level to them and not talking down to them  
Interviewee 7: I usually share screen with the client so that they could see, print the results out and write they’re good or no good, write notes on the printed results then give to patient, not all Aboriginal men like to read but I would offer it, refer to AHWs for health assessment, I would refer to resources if patient is willing to take them and read them but they must not have a lot of wordings | Interviewee 4: avoid handouts overload, with long standing relationships less use of handouts and more use of clinic personnel, any handouts needs a chat prior to assess health literacy, culturally appropriate handouts can be too simplistic and main stream ones too complex so a conversation works best, competing with social media to improve health literacy, being culturally appropriate is not about artwork on the handouts, give handouts to people who ask for it, culturally appropriate mental health handouts outline how to assess personal mental state and list of helplines, engage AHWs and Ngangkari,  
Interviewee 5: assess level of understanding, provide resources based on patient preference, use handouts with simpler language and culturally appropriate graphics, use AHWs, point out reliable resources, culturally appropriate counselling |